

# Cloudberry Backup for Linux – Deployment with SoftNAS Cloud

## Background:

The ability to backup SoftNAS pool data directly to object storage (ex. s3, Blob) has been requested by numerous SoftNAS customers. Testing of common backup platforms with SoftNAS Cloud was completed in 3<sup>rd</sup> quarter 2018. The results showed that most agent-based solutions were unable to read pool data due to ZFS incompatibility. However, Cloudberry Backup for Linux Server was able to recognize ZFS pool data, and back it up directly to AWS s3 or Azure Blob (and many other targets).

## Solution Overview:

- Cloudberry installs on the SoftNAS EC2 or Azure VM via an RPM package.
- Admins connect to the Cloudberry web console hosted on SoftNAS EC2/VM
- Backup & Restore jobs are created & managed via web UI `http(s)://softnas-ip-address:8443`
- Backup Storage targets (s3 buckets/Blob containers) are defined within Cloudberry console. Access via s3 & Blob storage account keys

## Main Features

### Scheduled Backup

Build flexible Linux backup schedule for files and folders.

### Command Line Interface

Use the Command Line Interface to integrate backup with your own routines.

### Web Interface

Use the Web Interface to take advantage of the rich UI on the systems with native GUI.

### Local Backup

Backup to the cloud storage of your choice or set up local backup if you want to send only a

### Incremental Linux Backup

Backup only new and modified files after the initial full backup.

### 256-bit AES Encryption

Encrypt Linux cloud backups with up to 256-bit strong keys on the source side. All data sent to the cloud is encrypted using the SSL protocols to protect while it is in transit.

### Retention Policies

Set up retention options to enable automated deletion of outdated data from your storage. Keep only actual versions of your Linux backups.

### Network Locations Backup

Back up your network locations including network shares, NAS devices, mapped drives,

### Block-Level Backup

Backup only modified or new portions of files to add them to existing online data pool.

### Compression

Reduce data overhead, decrease storage costs, aid bandwidth and accelerate backup completion with optional compression.

### Email Notifications

Set up customizable email notification feature to track each run of your backup and restore plans remotely.

### Symlinks Support

Maintain correct file structure and backup only what you need.

## SYSTEM REQUIREMENTS ^

1.4 GHz 64-bit processor, 512 MB RAM,  
100 MB minimum disk space,  
Gigabit (10/100/1000baseT) Ethernet adapter

## Estimating Initial Backup Seed Time:

- AWS SoftNAS Pool Data to/from s3 transferred at max 70 MBps
- Azure SoftNAS Pool Data to/from Blob transferred at max 45 MBps
- 10TB will take approximately 2 days in AWS & 3 days in Azure

## Licensing:

	Linux Free	Linux PRO	Linux Server	Linux Ultimate
Backup Support				
File-System Backup	✓	✓	✓	✓
Encryption	✗	✓	✓	✓
Compression	✗	✓	✓	✓
Usage	Home/Personal	Home/Personal	Business	Business
Storage Limits <span>i</span>	200 GB	5 TB	5 TB	unlimited
Pricing and Support				
Support	Community only	Email support	Email support	Email support
<b>Pricing</b> <small>*The license is per computer, one time fee **The price doesn't include VAT</small>	FREE	Buy for \$29.99 Volume discount	Buy for \$79.99 Volume discount	Buy for \$149.99 Volume discount

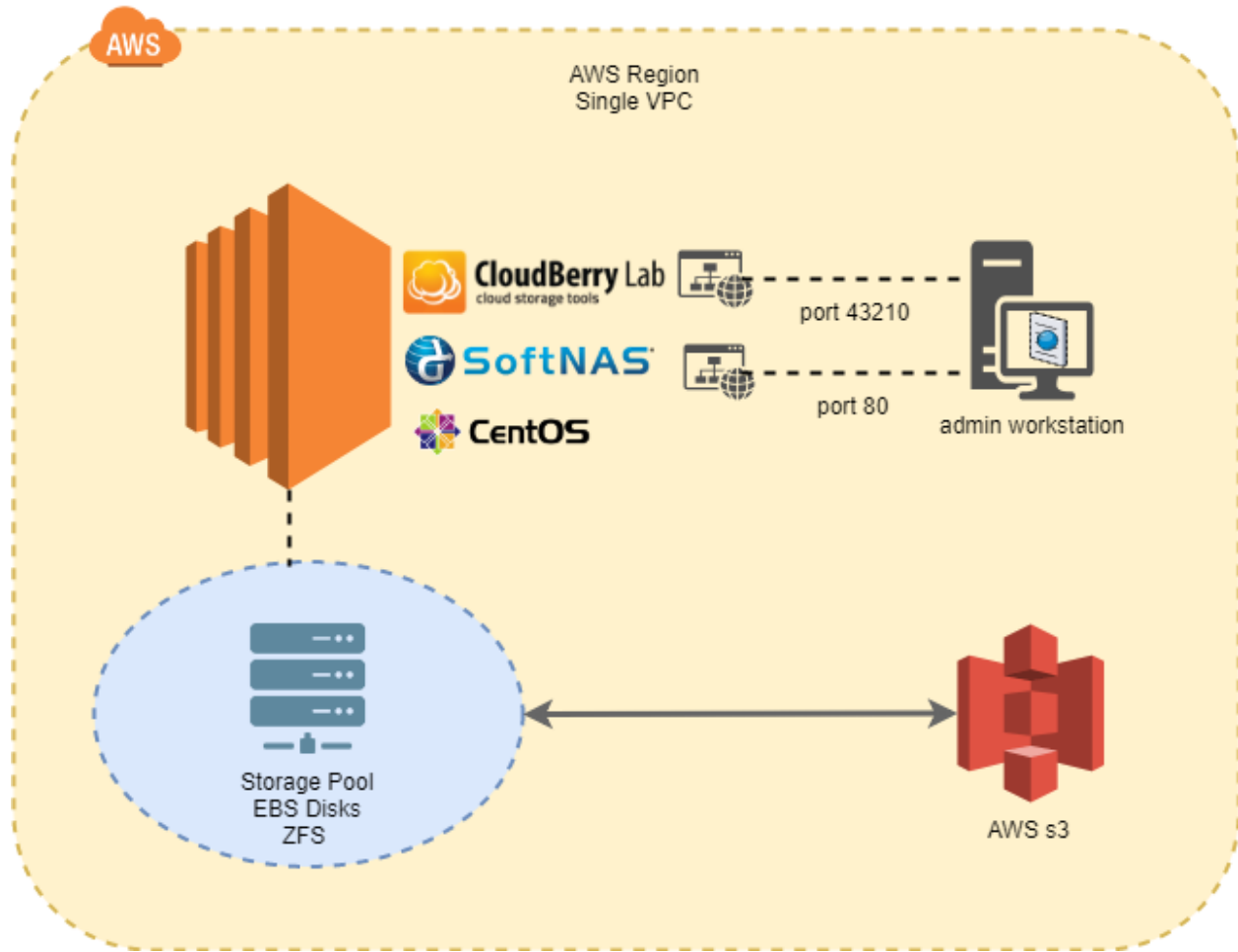
## Installation on SoftNAS (CentOS v6 +):

1. Download latest Cloudberry RPM via:  
<https://www.cloudberrylab.com/download.aspx?prod=cbbrrh6&p=linux>
2. Copy the RPM to a directory on the SoftNAS Cloud instance
3. Cd to directory where rpm package was copied
4. `sudo rpm -i rh6_CloudBerryLab_CloudBerryBackup_v2.4.3.11_20180511141639.rpm`
5. `cd /opt/local/CloudBerry\ Backup/bin/cbb`
6. `./cbb activateLicense -e "emailaddress@domain.com" -t "ultimate"`
7. `./cbb option -set wa -http on` (turns on http console access)
8. Using browser, connect to Cloudberry console via <http://softnasipaddress:43210>
9. Login using local Linux system creds

## Cloudberry CLI reference:

<https://www.cloudberrylab.com/resources/documentation/cli-api/cloudberry-backup-for-linux/>

Diagram:



Pros	Cons
ZFS compatible (tested in both AWS & Azure)	Not suitable for environments with more than 10 SoftNAS instances
Cost. \$150 for perpetual license per server with unlimited capacity	As of 5/2019 data backup only. No machine image or VHD backup
Can be OEM'd and bundled with SoftNAS AMIs	
Simple to administer	