Storage & Backups (out-of-date)

Setup ZFS Scrub (Data Integrity)

Automate [ZFS scrubbing](#) so the data integrity on disks is actively monitored, repaired if necessary, and I'm alerted if there is a problem with my disks.

Create systemd Service/Timer ([source](#))

Create a simple systemd servcie template for scrubbing ZFS pools.

```
# /etc/systemd/system/zpool-scrub@.service
+ [Unit]
+ Description=Scrub ZFS Pool
+ Requires=zfs.target
+ After=zfs.target
+
+ [Service]
+ Type=oneshot
+ ExecStartPre=-/usr/sbin/zpool scrub -s %I
+ ExecStart=/usr/sbin/zpool scrub %I
```

Then create a systemd timer template for periodically running that service. I am running the scrub weekly, but semi-monthly or monthly would almost certainly be ok too.

```
# /etc/systemd/system/zpool-scrub@.timer
+ [Unit]
+ Description=Scrub ZFS pool weekly
+
+ [Timer]
+ OnCalendar=weekly
+ Persistent=true
+
```

```
+ [Install]
+ WantedBy=timers.target
```

Enable ZFS Scrub

```
systemctl daemon-reload
systemctl enable --now zpool-scrub@rpool.timer
```

Setup Sanoid/Syncoid (Data Backup)

Run Sanoid for automating snapshots and Syncoid for remote backups. Unfortunately this isn't available in repositories so you have to build it yourself. However the author makes it fairly simple.

Install (source)

```
apt-get install build-essential debhelper dpkg-buildpackage libcapture-tiny-perl libconfig-inifiles-perl pv lzop
mbuffer
sudo git clone https://github.com/jimsalterjrs/sanoid.git
cd sanoid
ln -s packages/debian .
dpkg-buildpackage -uc -us
apt install ../sanoid_*_all.deb
```

Configure Sanoid

I want to take hourly snapshots of both of my ZFS pools because sometimes I am not as careful or thoughtful as I should be about what I am doing at any given moment.

```
# /etc/sanoid/sanoid.conf
+ [template_proxmox]
+       frequently = 0
+       hourly = 24
+       daily = 7
+       weekly = 4
+       monthly = 1
+       yearly = 0
+       autosnap = yes
+       autoprune = yes
+
```

```
+ [rpool]
+        use_template = template_proxmox
+        process_children_only = yes
+        recursive = yes
+
+ [rpool/ROOT]
+        use_template = rpool
+        process_children_only = yes
+        recursive = yes
+
+ [rpool/data]
+        use_template = template_proxmox
+        weekly = 1
+        monthly = 1
+        process_children_only = yes
+        recursive = yes
```

Maybe this is a sin, but I'd like my snapshots to be in local time so I don't have to do the (admittedly simple) conversion in my head.

```
# /usr/lib/systemd/system/sanoid.service
  [Service]
- Environment=TZ=UTC
+ Environment=TZ=EST
```

Configure Syncoid

I haven't decided where I want to replicate to yet so I haven't configured syncoid yet.

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