Nama: Andre Julio S Marbun

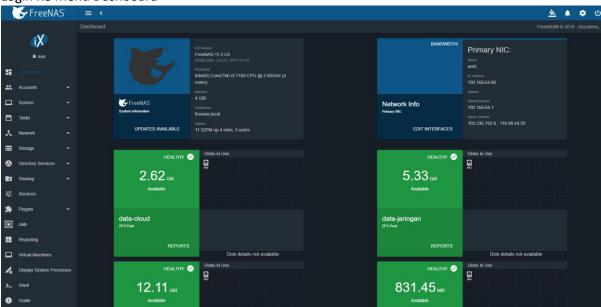
NIM: 123170079

Prak TCC A

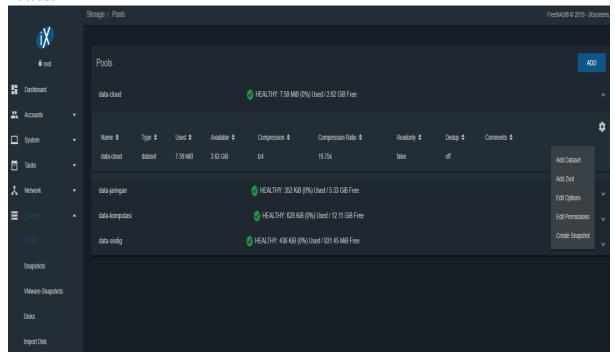
S3 Bucket Service

Merupakan protokol penyimpanan berbasiskan objek yang telah digunakan oleh banyak vendor cloud computing, contohnya Amazon Web Service.

1. Login Ke Menu Dashboard



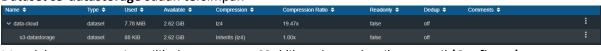
Masuk menu Storage Pool : Pada pool data-cloud buka menu options, kemudian pilih Add
 Dataset



3. Buat data set s3-datastorage



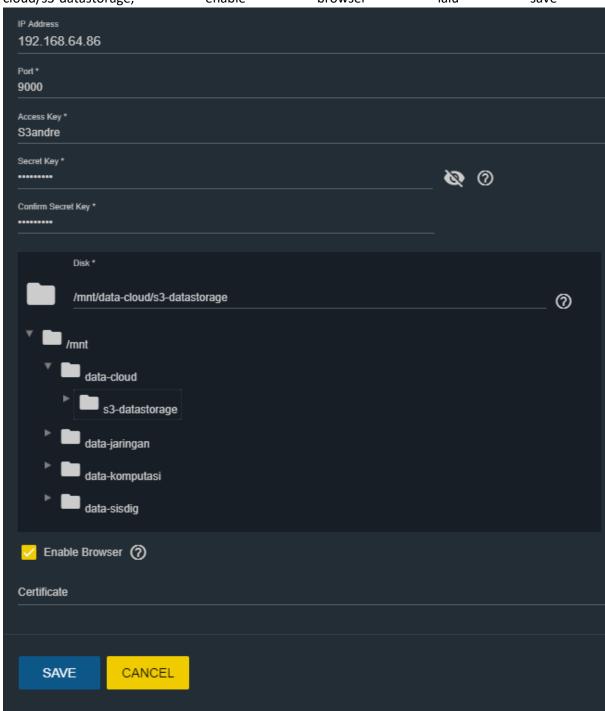
4. Dataset **s3-datastorage** sudah tersimpan



5. Masuk ke menu service pilih dengan nama S3, klik pada gambar ikon pensil (Configure)



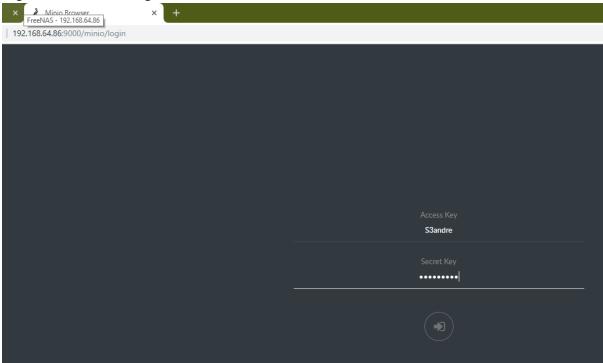
6. Konfigurasi S3 Service dengan IP Freenas nick S3nickname security: NIM , disk /mnt/data-cloud/s3-datastorage, enable browser lalu save



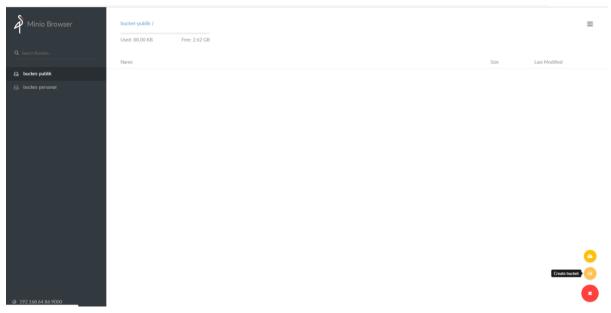
7. Aktivasi Layanan S3: Switch ke running sampai jadi kuning

Dapat diakses dengan http://IPFREENAS:9000

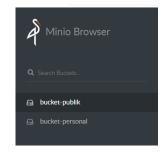
8. Login akses S3datastorage



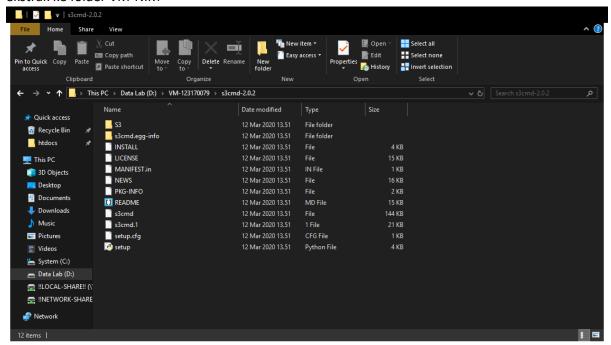
9. Tampilan Dashboard MinIO: pada bagian kanan bawah klik tombol **Add** kemudian pilih **Create Bucket** beri nama **bucket-personal**. Buat kembali dan beri nama **bucket-publik**.



10. Hasil Pembuatan Bucket



11. Mencoba s3cmd untuk Upload data : buka https://s3tools.org/download kemudian unduk paket aplikasi s3cmd dalam bentuk zip, ekstrak ke folder VM-NIM



- 12. Install s3cmd dengan Python: buka CMD dengan mode admin
- 13. Working directory ke folder S3 hasil unduh, arahkan CMD ke D: lalu cd VM-NIM, lalu cd s3cmd-2.0.2 lalu ketik python setup.py install

```
Microsoft Windows [Version 10.0.17763.678]
(c) 2018 Microsoft Corporation. All rights reserved
C:\Windows\system32>D:

D:\>cd VM-123170079

D:\VM-123170079>cd s3cmd 2.0.2
The system cannot find the path specified.

D:\VM-123170079>cd s3cmd-2.0.2

D:\VM-123170079\s3cmd-2.0.2>python setup.py install
```

14. Konfigurasi s3cmd: ketikkan perintah python s3cmd -configure (setelah selesai install)

```
D:\VM-123170079\s3cmd-2.0.2>python s3cmd --configure
ERROR: Option --preserve is not yet supported on MS Windows platform. Assuming --no-preserve.
ERROR: Option --progress is not yet supported on MS Windows platform. Assuming --no-progress.
Enter new values or accept defaults in brackets with Enter.
Refer to user manual for detailed description of all options.
Access key and Secret key are your identifiers for Amazon S3. Leave them empty for using the env variables.
Access Key:
```

15. Konfigurasi Access Key dengan **S3andre** lalu secret key **NIM** region kosongkan, endpoint 192.168.64.86:9000 isian bukcet, encrpytion, dan GPG kosongkan, bagian https isi No.. bagian proxy kosongkan, test settings, isikan Y. Bila berhasil status Success kemudian save settings dengan isian Y

```
ERROR: Option --preserve is not yet supported on MS Windows platform. Assuming --no-preserve.
ERROR: Option --progress is not yet supported on MS Windows platform. Assuming --no-progress.
Enter new values or accept defaults in brackets with Enter.
Refer to user manual for detailed description of all options.
Access key and Secret key are your identifiers for Amazon S3. Leave them empty for using the env variables.
Access Key: S3andre
Secret Key: 123170079
Default Region [US]:
Use "s3.amazonaws.com" for S3 Endpoint and not modify it to the target Amazon S3.
S3 Endpoint [s3.amazonaws.com]: 192.168.64.86:9000
Use "%(bucket)s.s3.amazonaws.com" to the target Amazon S3. "%(bucket)s" and "%(location)s" vars can be used
if the target S3 system supports dns based buckets.

DNS-style bucket+hostname:port template for accessing a bucket [%(bucket)s.s3.amazonaws.com]:
Encryption password is used to protect your files from reading
by unauthorized persons while in transfer to 53
Encryption password:
Path to GPG program:
When using secure HTTPS protocol all communication with Amazon S3
servers is protected from 3rd party eavesdropping. This method is
slower than plain HTTP, and can only be proxied with Python 2.7 or newer
Use HTTPS protocol [Yes]: No
On some networks all internet access must go through a HTTP proxy.
Try setting it here if you can't connect to S3 directly
HTTP Proxy server name:
New settings:
 Access Key: S3andre
  Secret Key: 123170079
  Default Region: US
  S3 Endpoint: 192.168.64.86:9000
  DNS-style bucket+hostname:port template for accessing a bucket: %(bucket)s.s3.amazonaws.com
  Encryption password:
  Path to GPG program: None
  Use HTTPS protocol: False
  HTTP Proxy server name:
  HTTP Proxy server port: 0
Test access with supplied credentials? [Y/n] Y
Please wait, attempting to list all buckets..
Success. Your access key and secret key worked fine :-)
Now verifying that encryption works...
Not configured. Never mind.
Save settings? [y/N]
```

16. Mencoba perintah s3cmd : pada jendela CMD, ketikan **python s3cmd ls** untuk melisting isi dari bucket pada s3 FreeNAS.

```
D:\VM-123170079\s3cmd-2.0.2>python s3cmd ls
2020-03-12 06:49 s3://bucket-personal
2020-03-12 06:49 s3://bucket-publik
```

17. Dokumen s3cmd : buka dokumentasi s3cmd pada alamat http://docs.min.io/docs/s3cmd-with-minio.html kemudian cobalah sintaks **Upload** dan **Download**



18. Perintah uoload file pada bucket: python s3cmd put mencoba.txt s3://bucket-personal

D:\VM-123170079\s3cmd-2.0.2>python s3cmd put mencoba.txt s3://bucket-personal ERROR: Parameter problem: Nothing to upload.

BACKGROUND Fitur dari FreeNAS

NETDATA SERVICE

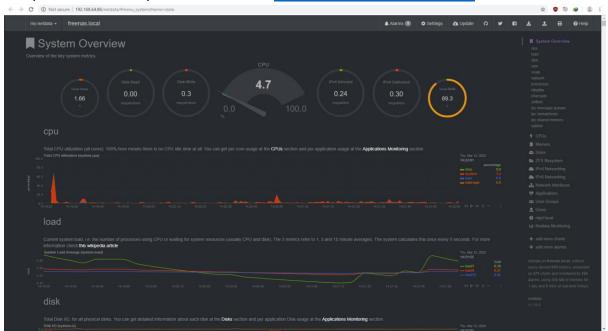
Netdata merupakan sistem layanan monitoring performa sistem secara real-time. Tampilan yang disediakan dalam bentuk web-based dashboard.

Tidak hanya berhenti di tampilan dashboard saja, netdata dapat diintegrasikan pada server sentral yang mengumpulkan berbagai data dari netdata untuk divisualisasikan secara komprehensif.

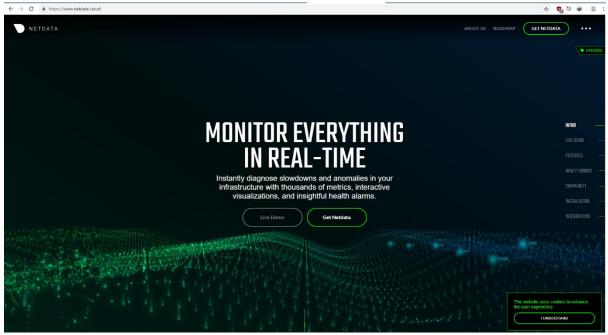
- 1. Masuk ke dashboard Freenas
- 2. Masuk Menu services: Cari service dengan nama netdata lalu running dan centang *Start Automaticaally*, Kemudian klik pada kotak **Launch** di kolom actions



3. Tampilan netdata: dapat diaskes melalui https://192.168.64.86/netdata



4. Dokumentasi netdata : buka laman https://netdata.cloud untuk mendapatkan informasi mengenai penggunaan netdata dan integrasinya



MENCOBA JASIL DENGAN TRANSMISSION

Selain digunakan sebagai file sharing,FreeNAS juga dapat digunakan sebagai mesin downloader torrent dengan menggunakan aplikasi Transmission.

Dengan konsep file storage dan file sharing, ditambah dengan berbagai service yang disediakan, kombinasi layanan yang ingin ditawarkan pada FreeNAS menjadi lebih banyak.