

Welcome to Eriomem!

We can be reached at:

[support@eriomem.net](mailto:support@eriomem.net)

twitter: @eriomem\_net

PGP key fingerprint: F341 945A 0EB9 B0EE 1AE3 34DA 4940 C08F DADE AA0E

## Your storage account

The maximum admissible size for an individual file is currently 5 GB.

There is no “hard” quota limit.

There is no “hard limit” with respect to quota, but please give us a heads-up if you intend to quickly get over 100 GB so that we check growth. All accounts will get a free 10 GB quota, and 100 GB for testers.

The basic bucket/key model is the same as the de-facto standard.

Bucket names must comply with the domain name system (DNS) host names: only digits, Latin alphabet, dash (-), dot.

The bucket namespace is shared between all users.

A bucket name can be:

- a dotless label;
- a fully qualified domain name (eg something.e.eriomem.net).

Stored files are accessible in http or https at:

**`http[s]://<bucket>.e.eriomem.net/nom`**

or, if **<bucket>** is a fully qualified domain name, and assuming it points to a Eriomem access point:

**`http[s]://<bucket>/nom`**

## Implemented features

Eriomem currently implements:

- bucket creation (PUT)
- object write (PUT), read (GET/HEAD), removal (DELETE), copy
- setting and modifying ACLs
- listing users buckets
- https or http access

## Clients

Any client conforming to the de-facto standard can be used. The following clients have been successfully tested with Eriomem systems.

### The s3cmd client

After installing the tool, generate a default configuration with:

```
$ s3cmd --configure
```

Then change the following settings in file `~/.s3cfg`:

```
host_base = e.eriomem.net
```

```
host_bucket = %(bucket)s.e.eriomem.net
```

```
website_endpoint = http://%(bucket)s.e.eriomem.net/
```

If you wish to use TLS (recommended):

```
ca_certs_file = /etc/ssl/eriomemca.pem
```

The public certificate of the Eriomem Certification Authority is available here:

- Certificate <http://downloads.e.eriomem.net/eriomemca.pem>
- Detached signature <http://downloads.e.eriomem.net/eriomemca.pemasc>
- or see appendix of this document (please check integrity after copying)

The CA certificate should be installed in the path given for `ca_certs_file` above, here `/etc/ssl/eriomemca.pem`.

### The S3 Browser client

This client is a Microsoft Windows *freeware* which can be downloaded from:

<https://s3browser.com/>

### The S3 Anywhere client

This client is an Android phone application. It can be found in the Google Play store.

### The Erclient tool

The `erclient` client provided by Eriomem is more limited in functionality and requires Python 2.7.9 or Python 3.5, with the compatibility module `six`.

However, it can send a data flow from stdin, which can be useful in cases where you want to avoid

intermediate storage in a file: video streaming or backup, for example.

Server and client will be distributed under a free software licence.

The client can be downloaded here:

Python Egg :

[http://downloads.e.riomem.net/riomem\\_client-py2.7.egg](http://downloads.e.riomem.net/riomem_client-py2.7.egg)

Detached PGP Signature with my key (F341 945A 0EB9 B0EE 1AE3 34DA 4940 C08F DADE AA0E) :

[http://downloads.e.riomem.net/riomem\\_client-py2.7.egg.asc](http://downloads.e.riomem.net/riomem_client-py2.7.egg.asc)

Or PGP-signed Python Egg :

[http://downloads.e.riomem.net/riomem\\_client-py2.7.egg.gpg](http://downloads.e.riomem.net/riomem_client-py2.7.egg.gpg)

Installation with Python setuptools:

```
# easy_install riomem_client-py2.7.egg
```

Source distributions:

<http://downloads.e.riomem.net/riomem-client.tar.gz>

<http://downloads.e.riomem.net/riomem-client.tar.gz.asc>

<http://downloads.e.riomem.net/riomem-client.tar.gz.gpg>

It is a command line client. It can send, get and delete files, create or list a bucket. Everything is transmitted crypted through https (this is currently mandatory).

1) create `$HOME/.erclientrc`, mode 600

Add the following line:

```
identifiant:mot de passe:nom du bucket:e.riomem.net
```

Example :

```
MXB8AYFWYFYAI69KLQ3V:UmwNnBj0Ij7tvvy83YFTY2ZNN9oL/KA:monfutureseau:e.riomem.net
```

"monfutureseau" will have to be replaced with the bucket name created at 2) below.

This file can contain several lines, the tools chooses the appropriate line based on the bucket name (option `-b`).

2) create a bucket

For example :

```
$ erclient -C -b monbucket
```

3) add the bucket name in `.erclientrc`.

4) send files!

- one file:

```
$ erclient /etc/motd
```

- a directory and all its files, recursively:

```
$ erclient -r $HOME/Mail
```

5) lista "bucket"

```
$ erclient -l
```

6) send stdin

```
$ macommande | erclient -i monfichier.gpg
```

See command usage.

## Background

The system operates nodes (servers) sharing a distributed hash table (DHT), a basic technology of peer-to-peer systems.

All the nodes are equivalent from a software point of view, there is no specialization or hierarchy. But the number and size of disk volumes may vary.

A node is a Unix machine with a an arbitrary disk space available for storage (including 0, in which case the node only serves as a HTTP front-end).

HTTP/HTTPS entry points are thus equivalent. One may use the entry point obtained by DNS resolution of the entry point domain name. It is recommended but not mandatory.

Files sent to the system through the HTTP/HTTPS interface are currently stored on 3 nodes picked using the DHT. Later, it will be possible to specify the number of replicas and location of storage (datacenters).

Currently, the running nodes are:

- 1 node in Luxembourg, Gandi ;
- 2 nodes in Vitry-sur-Seine (France) at Online.fr (Free) ;
- 1 node in Falkenstein (Germany) at Hetzner.de ;
- 1 node in Frankfurt (Germany) at Leaseweb.com.

Other countries currently considered, based on local law and prices.

## Encryption

### HTTP front-end

The HTTP front end is accessible using HTTP or HTTPS, in Ipv6 or Ipv4. HTTPS is of course recommended. The public certificate of the Eriomem certificat authority root in in the client software.

### Internal protocol

The DHT and node list updates are realized trough a protobuf-based protcol, transmitting clear text,

authenticated (HMAC) and timestamped UDP packets.

All of the rest (including replicated data) is exchanged through TLS/TCP. The server side is identified by an internal certificate signed by the Eriomem CA. Currently it is a \* certificate identical between servers (which is dangerous in case a server is compromised).

## **Local storage**

Currently, all nodes store their content in clear text, as provided by the content sender. The hosting provider can thus access it if and when he can access the disks directly.

We recommend user-side (sender-side) encryption of any confidential content (especially backups), through PGP or other encryption system, and to not store the private key on Eriomem servers (or possibly with a secure, well-chosen passphrase).

# APPENDIX

Certificate for the Eriomem CA, included in the code. It should be used from February 2<sup>nd</sup>, 2017.

It is also available here: <http://downloads.e.eriomem.net/eriomemca-2017.pem>

Detached PGP signature: <http://downloads.e.eriomem.net/eriomemca-2017.pem.asc>

Check your copy is valid with `openssl x509 -text < eriomemca-2017.pem`

Certificate:

Data:

Version: 3 (0x2)

Serial Number:

98:e1:0b:07:c9:77:61:ce

Signature Algorithm: sha256WithRSAEncryption

Issuer: C=FR, ST=Île de France, L=Paris, O=Eriomem SAS, OU=Eriomem CA, CN=Eriomem SAS/emailAddress=ca@eriomem.net

Validity

Not Before: Jan 31 15:55:38 2017 GMT

Not After : Jan 31 15:55:38 2037 GMT

Subject: C=FR, ST=Île de France, L=Paris, O=Eriomem SAS, OU=Eriomem CA, CN=Eriomem SAS/emailAddress=ca@eriomem.net

Subject Public Key Info:

Public Key Algorithm: rsaEncryption

Public-Key: (4096 bit)

Modulus:

00:bd:3d:eb:01:79:ee:9d:70:45:cb:80:b3:04:a5:  
f9:e6:35:36:cc:3f:bc:6c:10:91:b1:13:07:12:ec:  
b2:d5:b1:9b:bc:6d:8e:4a:e2:9a:c2:4c:4a:f3:73:  
79:e1:9a:63:8c:23:2f:d9:c5:54:e5:9d:33:8f:1c:  
50:14:27:d1:0a:23:97:0b:d1:07:ca:f4:36:c1:ce:  
33:c1:b3:90:2a:9e:d9:69:14:1a:73:e8:3a:29:57:  
71:4e:16:3d:eb:9f:49:db:fe:0d:ca:c8:3d:ed:aa:  
73:7f:60:77:41:89:2b:57:ff:fc:fe:2e:9d:c7:db:  
c3:38:13:1a:54:14:90:49:ad:5d:f0:6e:83:33:5a:  
00:e7:4a:2a:ef:27:22:c5:6e:67:93:3e:65:1e:b5:  
87:42:e2:19:52:aa:bf:cb:7a:8d:fa:75:ae:02:4a:  
5d:17:c0:df:fc:dd:5a:f3:cb:f0:aa:ad:c7:ec:a3:  
8d:c7:b3:ce:92:c2:68:3d:a4:99:aa:46:27:d6:3c:  
da:cc:9d:ee:3d:23:09:c6:3f:88:48:41:77:1b:f6:  
29:54:d5:b3:0a:1b:35:e8:af:a2:34:c8:e6:23:bb:  
3b:dd:83:59:35:28:ab:e7:1e:f3:b5:53:67:14:57:  
9e:8c:a1:35:e6:40:73:ad:d7:24:2b:ed:fc:22:2b:  
24:f4:c6:22:20:93:9a:2e:40:a6:d7:6e:e1:e9:7f:  
72:93:c0:f9:a0:d6:ce:f5:d3:94:f6:94:48:71:34:  
c3:5d:f9:cd:a5:79:1b:b1:dc:22:4a:b2:88:ba:1a:  
85:21:88:32:0b:d6:33:eb:58:d4:b7:ca:76:07:27:  
59:5c:ca:81:2c:19:e5:f0:47:d9:83:99:52:e1:81:  
12:c3:00:73:43:39:e4:fd:67:4f:cd:a7:0a:32:94:  
d1:fe:be:0c:33:a3:db:55:dd:bb:56:44:98:2e:bc:  
1e:d3:30:36:1d:1a:c3:9d:fc:e6:0d:91:04:a2:49:  
46:ed:4f:c9:e6:df:16:36:a8:63:02:f7:af:06:42:  
27:92:08:f5:bb:6b:89:fc:31:88:57:5b:95:9a:d3:  
f4:25:4a:0e:7c:7b:4d:ef:db:ab:b4:ad:44:fe:18:  
ad:44:38:e1:45:f2:d6:a4:e2:e2:b1:c5:12:fe:58:

14:fd:56:12:bd:75:1a:bf:3e:70:3e:c4:1e:bc:d3:  
c6:3c:90:c8:d0:f4:74:e7:c4:28:07:35:c3:67:e9:  
78:fb:0c:3e:51:6f:fa:f9:a6:99:8c:89:ca:08:dd:  
d1:7a:c6:03:07:1c:d4:c6:dc:13:19:4b:e0:95:cd:  
26:c6:d4:af:b8:98:ec:51:d6:be:b0:c4:a9:ac:92:  
8b:33:2f

Exponent: 65537 (0x10001)

X509v3 extensions:

X509v3 Subject Key Identifier:

DD:CB:81:F4:6F:5F:1A:BA:05:17:45:56:DB:5B:C7:47:D0:3F:FC:8C

X509v3 Authority Key Identifier:

keyid:DD:CB:81:F4:6F:5F:1A:BA:05:17:45:56:DB:5B:C7:47:D0:3F:FC:8C

X509v3 Basic Constraints:

CA:TRUE

Signature Algorithm: sha256WithRSAEncryption

1a:e2:fe:09:6c:e3:3a:cf:60:c9:db:e4:3a:c7:f4:17:4a:a8:  
4d:2e:66:8b:17:bb:bf:f8:9c:38:a7:59:7e:f1:ef:ce:cf:24:  
cf:da:cd:59:af:06:ba:3e:61:eb:8d:10:bf:6e:76:29:29:9e:  
96:5a:87:c9:76:61:42:e9:a8:92:cd:97:98:52:2d:30:b6:34:  
f0:86:28:e0:c9:93:fa:c1:d7:c3:1d:71:e0:0b:ff:4a:38:fe:  
6f:c5:73:3f:7d:6f:e4:42:17:0d:52:12:fb:f5:13:5f:3c:a8:  
53:58:60:ab:33:3d:5b:dd:fb:89:a3:b6:35:51:4b:57:79:33:  
51:11:d5:47:5a:0c:c4:9b:52:8e:11:a4:6d:fa:17:46:17:4d:  
65:48:63:19:a3:73:e7:05:f4:20:bb:50:f8:f2:b8:2e:86:22:  
0a:a4:40:b6:10:d4:48:89:16:98:3f:d1:e8:25:74:f2:d2:05:  
60:ac:9f:ee:c0:b1:d2:ea:5d:6c:81:cf:6e:a6:d9:b4:f5:b8:  
5f:84:14:2d:73:03:41:a9:c3:4b:01:f3:73:1c:eb:08:53:8c:  
13:03:a6:03:e1:c0:49:c7:aa:d9:7f:67:31:4b:c7:f7:b7:c6:  
43:86:2e:ca:88:12:fd:72:35:93:c1:fb:8d:4e:ef:97:13:00:  
dc:41:9f:f3:41:e7:61:cd:36:6f:4a:06:0c:dd:dc:6d:51:c1:  
13:f6:5e:c5:ea:f9:d4:71:ec:40:e1:a9:c9:80:e6:68:25:73:  
77:5a:a5:70:58:70:4b:70:4c:30:f5:56:e9:31:14:e0:70:97:  
69:32:b9:8a:97:4e:a9:b0:05:b3:2c:7d:39:4b:e2:ab:0d:df:  
46:66:4e:46:de:a5:ae:10:4e:f7:e5:77:58:82:86:c5:41:13:  
eb:81:8b:46:80:b8:17:7d:82:4e:13:81:2b:31:57:bc:57:07:  
8a:4e:27:d5:6e:38:94:65:40:42:9d:c1:fd:0e:79:2b:36:0e:  
21:0d:c3:df:f3:7b:71:bc:72:3e:dc:35:77:05:ba:d2:53:7f:  
51:6a:3b:61:92:49:73:ee:86:5e:3a:7a:73:80:b2:b3:65:44:  
a1:4c:78:38:8b:35:79:b6:bd:f4:ee:5f:75:0e:48:a5:6d:c8:  
2b:a0:9b:d5:66:9a:8d:cb:ac:65:7f:7f:41:32:2c:7f:79:ed:  
48:d3:c2:9e:87:9b:82:4d:15:4c:e3:29:38:e9:ca:21:b2:98:  
32:37:71:a4:a6:d8:2e:95:c5:43:3c:72:dd:61:22:d8:fb:66:  
aa:02:c0:93:ec:70:72:6c:f3:fb:75:b6:23:4a:8a:29:3c:06:  
b9:a3:99:32:71:ab:27:08

-----BEGIN CERTIFICATE-----

MIIGATCCA+mgAwIBAgIJAJJhCwfJd2H0MA0GCSqGSIb3DQEBCwUAMIGWMQswCQYD  
VQQGEwJGUjEXMBUGA1UECAwOw45sZSBkZSBGcmFuY2UxDjAMBgNVBACMBVBhcm1z  
MRQwEgYDVQKDAUFcm1vbWVtIFNBUZETMBEGA1UECwwKRXJpb211bSBDQTEUMBIG  
A1UEAwwLRXJpb211bSBTVQVxHTAbBgkqhkiG9w0BCQEWDMNhQGvyaW9tZW0ubmV0  
MB4XDTE3MDEzMTE1NTUzOFoXDTM3MDEzMTE1NTUzOFowgZYxCzAJBgNVBAYTAKZS  
MRCwFQYDVQKDA7Djmx1IGR1IEZyYW5jZTEOMAwwGA1UEBwwFUGFyaXMxZDASBgNV  
BAoMC0VyaW9tZW0gU0FTMRMwEQYDVQQLDAPFcm1vbWVtIENBMRCwEgYDVQKDDAUF  
cm1vbWVtIFNBUZEdMBSGCSqGSIb3DQEJARYOY2FAZXJpb211bS5uZXQwggIiMA0G  
CSqGSIb3DQEBAAUA4ICDwAwggIKAoICAQC9PesBee6dcEXLgLMepfNmNTbMP7xs  
EJGxEwcS7LLVsZu8bY5K4prCTErzc3nhmmOMIy/ZxVTlnTOPHFAUJ9EKI5cL0QfK  
9DbBzjPBs5Aqnt1pFBpZ6DopV3F0Fj3rnn0nb/g3KyD3tqnN/YHdBistX//z+Lp3H  
28M4ExpUFJBjRv3wboMzWgDnSirvJyLFbmeTPmUetYdC4h1Sqr/Leo36da4CSl0X  
wN/83Vrzy/Cqrcfso43Hs86Swmg9pJmqrifWPNrMne49IwnGP4hIQXcb9i1U1bMK

GzXor6I0y0Yjuzvdg1k1KKvnHv01U2cUV56MoTXmQH0t1yQr7fwiKyT0xiIgk5ou  
QKbXbuHpf3KTWpmg1s7105T21EhxNMNd+c21eRux3CJksoi6GoUhiDIL1jPrWNS3  
ynYHJ11lcyoEsGeXwR9mDmVLhgRLDAHND0eT9Z0/Npwoy1NH+vgwzo9tV3btWRJgu  
vB7TMDYdGsOd/OYNkQSiSubtT8nm3xY2qGMC968GQieSCPW7a4n8MYhXW5Wa0/Q1  
Sg58e03v26u0rUT+GK1E00FF8tak4uKxxRL+WBT9VhK9dRq/PnA+xB6808Y8kmJQ  
9HTnxCGHNCnN6Xj7DD5Rb/r5ppmMicoI3dF6xgMHHNTG3BMZS+CVzSbG1K+4m0xR  
1r6wxKmskoszLwIDAQAB01AwTjAdBgNVHQ4EFgQU3cuB9G9fGroFF0VW21vHR9A/  
/IwwHwYDVR0jBBgwFoAU3cuB9G9fGroFF0VW21vHR9A//IwwDAYDVR0TBAUwAwEB  
/zANBgkqhkiG9w0BAQsFAAOCAGeAGuL+CWzj0s9gydvk0sf0F0qoTS5mixe7v/ic  
OKdZfvHvzs8kz9rNwa8Gu5h640Qv252KSme1lqHyXZhQumoks2XmFitMly08IYo  
4MmT+sHXwx1x4Av/Sjj+b8VzP31v5EIXDVIS+/UTXzyoU1hgqzM9W937ia02NVFL  
V3kzURHVR1oMxJtSjhGkbfoXRhdNZUhjGaNz5wX0ILtQ+PK4LoYiCqRathDUSIKw  
mD/R6CV08tIFyKyf7sCx0updbIHPbqbZtPw4X4QULXMDQanDSwHzcXzrCFOMEw0m  
A+HASceq2X9nMUVH97fGQ4YuyogS/XI1k8H7jU7v1xMA3EGf80HnYc02b0oGDN3c  
bVHBE/Zexer51HHSQ0GpyYDmaCVzd1q1cFhwS3BMMPVW6TEU4HCXaTK5ipd0qbAF  
syx90Uviquw3FRmZORt6lrhB09+v3WIKGXUET64GLRoC4F32CTh0BKzFXvFchik4n  
1W441GVAQp3B/Q55KzYOIQ3D3/N7cbxyPtW1dwW601N/UW07YZJc+6GXjp6c4Cy  
s2VEoUx40Is1eba9905fdQ5IpW3IK6Cb1WaaJcusZX9/QTIsf3ntSNPCnoebgk0V  
T0Mp00nKIbKYMjdxpKbYLPxFQzxy3WEi2PtmqgLaK+xwcmzz+3W2I0qKKTWGuA0Z  
MnGrJwg=

-----END CERTIFICATE-----

Former Eriomem certificate, to be used until February 2nd, 2017.

Certificate:

Data:

Version: 3 (0x2)

Serial Number: 11827130378469153060 (0xa422686a98e29924)

Signature Algorithm: sha1WithRSAEncryption

Issuer: C=FR, ST=\xCEle de France, L=Paris, O=Eriomem SAS, CN=Eriomem  
SAS/emailAddress=ca@eriomem.net

Validity

Not Before: May 13 18:30:31 2014 GMT

Not After : May 13 18:30:31 2034 GMT

Subject: C=FR, ST=\xCEle de France, L=Paris, O=Eriomem SAS, CN=Eriomem  
SAS/emailAddress=ca@eriomem.net

Subject Public Key Info:

Public Key Algorithm: rsaEncryption

Public-Key: (2048 bit)

Modulus:

00:a5:57:d1:db:b2:56:de:ed:f2:be:37:44:10:0f:  
3f:98:69:40:34:c9:6e:ae:ab:5e:32:70:97:80:f0:  
0a:9e:4c:94:ef:16:ee:05:69:0d:c6:ce:85:ad:c5:  
ef:76:98:e8:98:f4:2c:0e:8b:0b:5c:e6:f8:a5:5f:  
b8:4b:17:b3:02:96:98:5d:5a:92:cc:35:8f:57:c3:  
37:e5:02:63:13:c9:ce:56:e0:ef:af:7c:e2:25:f4:  
48:4c:6f:7f:58:bd:83:a4:5f:73:a4:8e:87:a5:75:  
71:75:83:5b:64:6c:5e:08:8d:8a:79:24:35:a6:47:  
37:e7:be:21:0c:1d:58:07:ce:93:ba:67:16:3c:86:  
2e:c3:b7:03:14:2f:47:07:b8:6d:9b:65:d8:51:1b:  
7a:a3:68:d7:6e:93:6d:74:75:a8:12:15:b1:fe:6e:  
dc:aa:90:c2:66:6a:01:5b:59:f7:78:0a:59:69:cf:  
b8:22:6d:9b:3d:74:90:02:a0:7f:2d:bd:2b:81:fb:  
2a:26:ad:ef:10:be:31:d7:6a:02:ff:96:1c:9f:87:  
05:c6:d8:b8:01:aa:4f:8c:2d:86:68:f6:f2:6c:52:  
df:07:03:0b:bb:e9:40:80:f2:61:dc:0e:03:0b:50:  
dc:42:cc:53:b8:a3:ef:52:2f:ca:d3:47:82:64:3a:  
24:7b

Exponent: 65537 (0x10001)



X509v3 extensions:

X509v3 Subject Key Identifier:

45:C1:54:A5:8C:29:60:4D:0C:41:4D:1B:EA:7E:DB:C9:DC:E1:37:C5

X509v3 Authority Key Identifier:

keyid:45:C1:54:A5:8C:29:60:4D:0C:41:4D:1B:EA:7E:DB:C9:DC:E1:37:C5

DirName:/C=FR/ST=\xCEle de France/L=Paris/O=Eriomem SAS/CN=Eriomem

SAS/emailAddress=ca@eriomem.net

serial:A4:22:68:6A:98:E2:99:24

X509v3 Basic Constraints:

CA:TRUE

Signature Algorithm: sha1WithRSAEncryption

2a:ce:cf:31:0f:47:00:a1:d8:d6:c7:86:44:71:0c:8a:f4:06:
57:30:c3:67:b9:d4:44:19:93:90:42:25:e7:8f:50:13:24:1b:
ac:09:1c:1d:48:c9:74:c0:2e:22:09:db:3e:5e:32:24:51:08:
f7:b5:36:d6:95:db:dc:17:8b:c6:12:88:ea:bd:3d:3a:05:b0:
64:46:a0:ac:8e:38:36:cf:56:6d:c3:46:b7:0e:5b:92:0c:80:
e2:79:f4:d3:0d:20:80:02:4b:ab:d6:f4:b1:3a:14:da:f2:b6:
c7:a8:3e:d6:85:c7:f0:ae:c1:6c:eb:b8:f7:ff:8d:4f:30:9a:
7e:00:73:14:c8:b4:3f:b1:56:1a:b1:36:ae:a8:7a:80:50:55:
26:1f:2a:06:e2:b6:f9:01:ba:46:77:dd:c3:e9:87:5a:c7:9d:
73:ff:cd:44:58:cf:48:2d:d9:59:a3:dc:72:ef:6c:e3:e2:24:
8c:ec:b7:46:17:64:36:b1:77:89:e5:a2:b6:61:99:8b:89:94:
65:0d:ea:8b:e3:69:d9:9f:9e:92:7d:10:99:78:e6:2d:d6:cb:
17:12:b0:f3:1a:11:11:dd:fa:2c:f9:c6:72:62:90:37:bd:91:
8a:49:8d:9b:1f:37:8b:c0:ab:38:5e:8e:af:d6:ae:18:4e:4e:
f3:ea:a9:cb

-----BEGIN CERTIFICATE-----

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Ed36LPnGcmKQN72RikmNmx83i8Cr0F60r9auGE508+qpyw==

-----END CERTIFICATE-----