

- Saving time and hassle setting up new email accounts



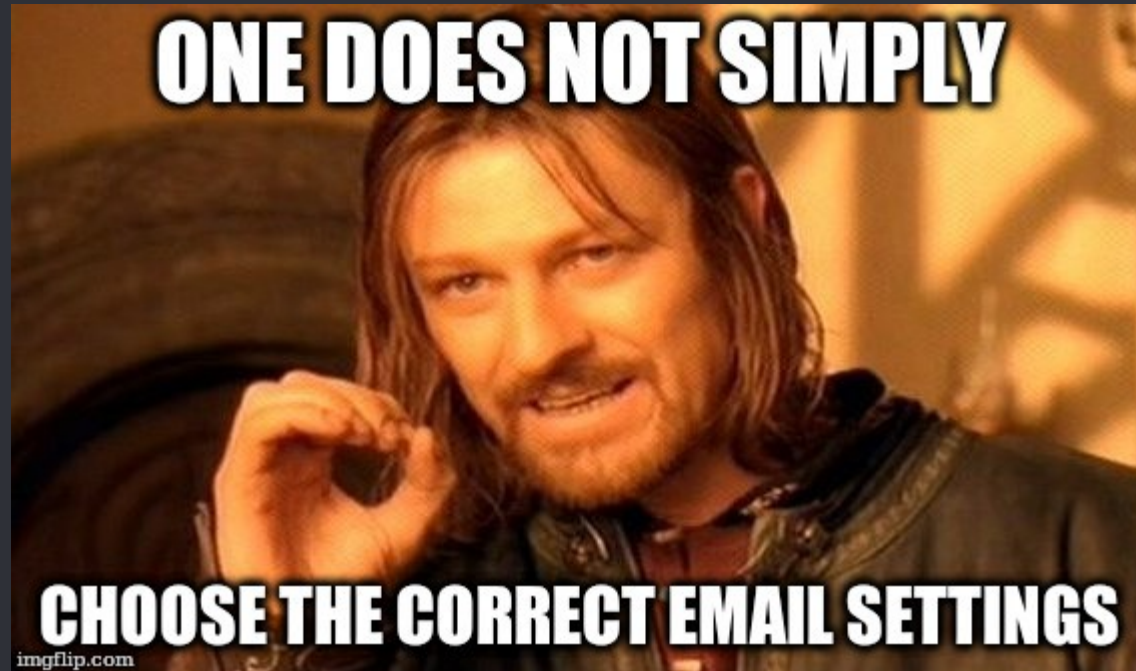
Hello!

I AM DOMINIC LÜCHINGER

Working for cyon in Basel, CH  
Head of Software Engineering  
@drdol



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### POP and IMAP Account Settings

Enter the mail server settings for your account.



#### User Information

Your Name:

Email Address:

#### Server Information

Account Type:

Incoming mail server:

Outgoing mail server (SMTP):

#### Logon Information

User Name:

Password:

Remember password

Require logon using Secure Password Authentication (SPA)

#### Test Account Settings

We recommend that you test your account to ensure that the entries are correct.

Automatically test account settings when Next is clicked

#### Deliver new messages to:

New Outlook Data File

Existing Outlook Data File



## Mail Account Setup



Your name:

Your name, as shown to others

Email address:

Password:

Remember password

 **Thunderbird failed to find the settings for your email account.**

	Server hostname	Port	SSL	Authentication
Incoming:	<input type="text" value="IMAP"/>	<input type="text" value=".example.com"/>	<input type="text" value="Auto"/>	<input type="text" value="Autodetect"/>
Outgoing: SMTP	<input type="text" value=".example.com"/>	<input type="text" value="Auto"/>	<input type="text" value="Autodetect"/>	<input type="text" value="Autodetect"/>
Username: Incoming:	<input type="text" value="dol"/>		Outgoing:	<input type="text" value="dol"/>

[Get a new account](#)

[Advanced config](#)

[Cancel](#)

[Re-test](#)

[Done](#)

# Client Specific Setup Instructions

**Note:** While the settings listed above are the general overall settings that will operate when synchronizing to your HostGator accounts, connectivity cannot be guaranteed.

The articles listed below are for common email clients that are used with HostGator email accounts and are considered general instructions. If you seek to setup advanced settings, please confer with the developer of your particular email client or your site developer for assistance.

- [Mac Mail Setup](#)
- [Apple iPhone Email Setup](#)
- [Blackberry Email Setup](#)
- [G Suite Setup](#)
- [Google Mail Fetcher](#)
- [Thunderbird Setup](#)
- [Outlook 2003/2007 Setup](#)
- [Outlook 2010 Setup](#)
- [Outlook 2011 for Mac Setup](#)
- [POP/IMAP with SSL Setup](#)
- [Entourage Setup Guide](#)
- [KMail Setup Guide](#)
- [Android Phone Setup](#)

● CHOOSE A HOSTNAME

	banana.shop	s087.hoster.host
SSL	✓ ⚡	✓
Transfer resistant	✓ ⚡	✗
Easy to communicate	✓	✗
Provider change	✓	✗

## ● PROBLEMS REPORTED TO CUSTOMER SUPPORT

### CERT WARNING

Email client shows SSL certificate warning.

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### WRONG PASSWORD

My password is not working anymore.

I changed nothing™

### MISCELLANEOUS

Antivirus/Firewall  
Provider change  
Not your customer





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## AUTOMATION IS KING



## SOLUTIONS



### **AUTODISCOVER**

Outlook

HTTPS/SRV DNS

### **AUTOCONFIG**

Thunderbird

HTTP

### **MOBILECONFIG**

Apple Mail

File based  
configuration

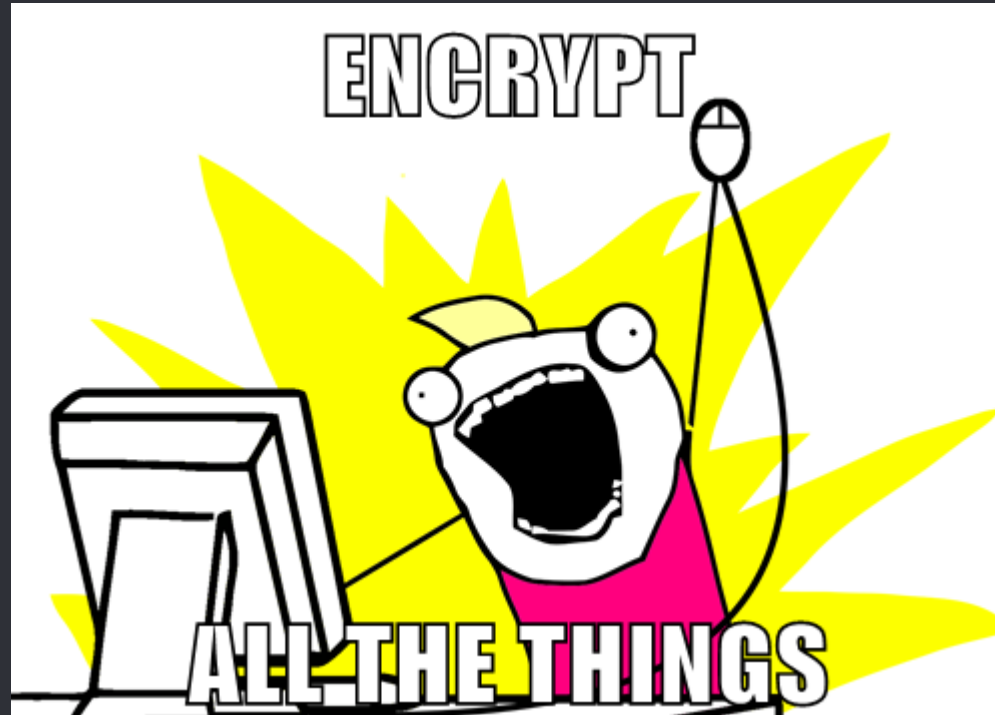


## ● LET'S IMPLEMENT THIS


● Support agent started implementation (Q1 2013)

● Ready to ship Autodiscover, Autoconfig and mobileconfig (Q2 2013)

● Roll out never happend due to major issue



**Add Security Exception**

 You are about to override how Thunderbird identifies this site.  
**Legitimate banks, stores, and other public sites will not ask you to do this.**

**Server**  
Location:

**Certificate Status**  
This site attempts to identify itself with invalid information.

**Wrong Site**

The certificate belongs to a different site, which could mean that someone is trying to impersonate this site.

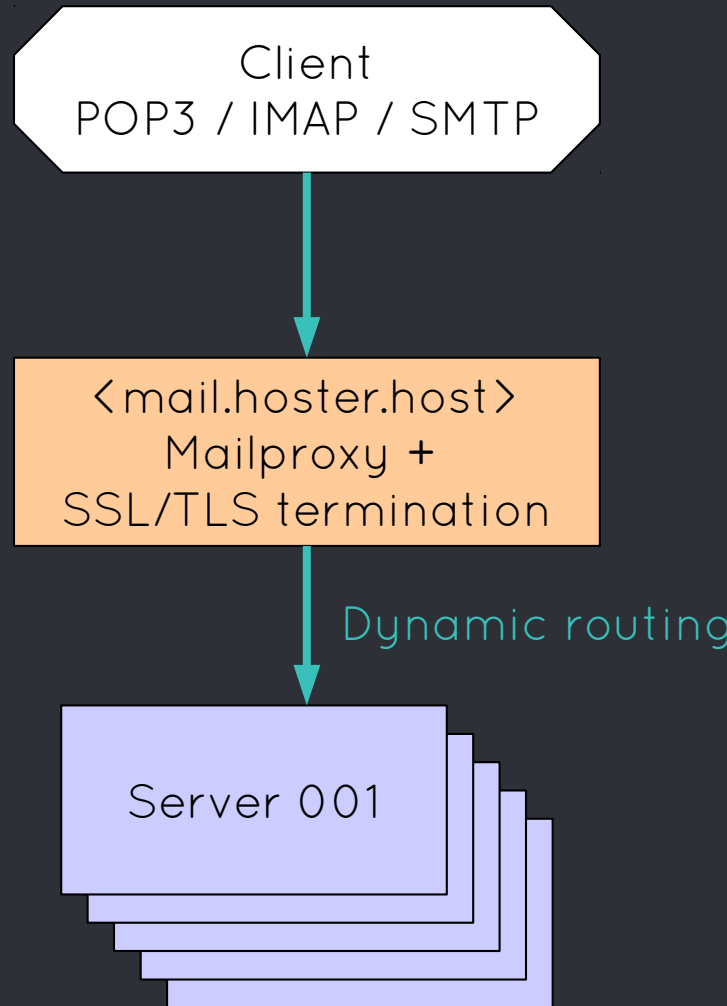
Permanently store this exception



● CHOOSE A HOSTNAME [RELOADED]

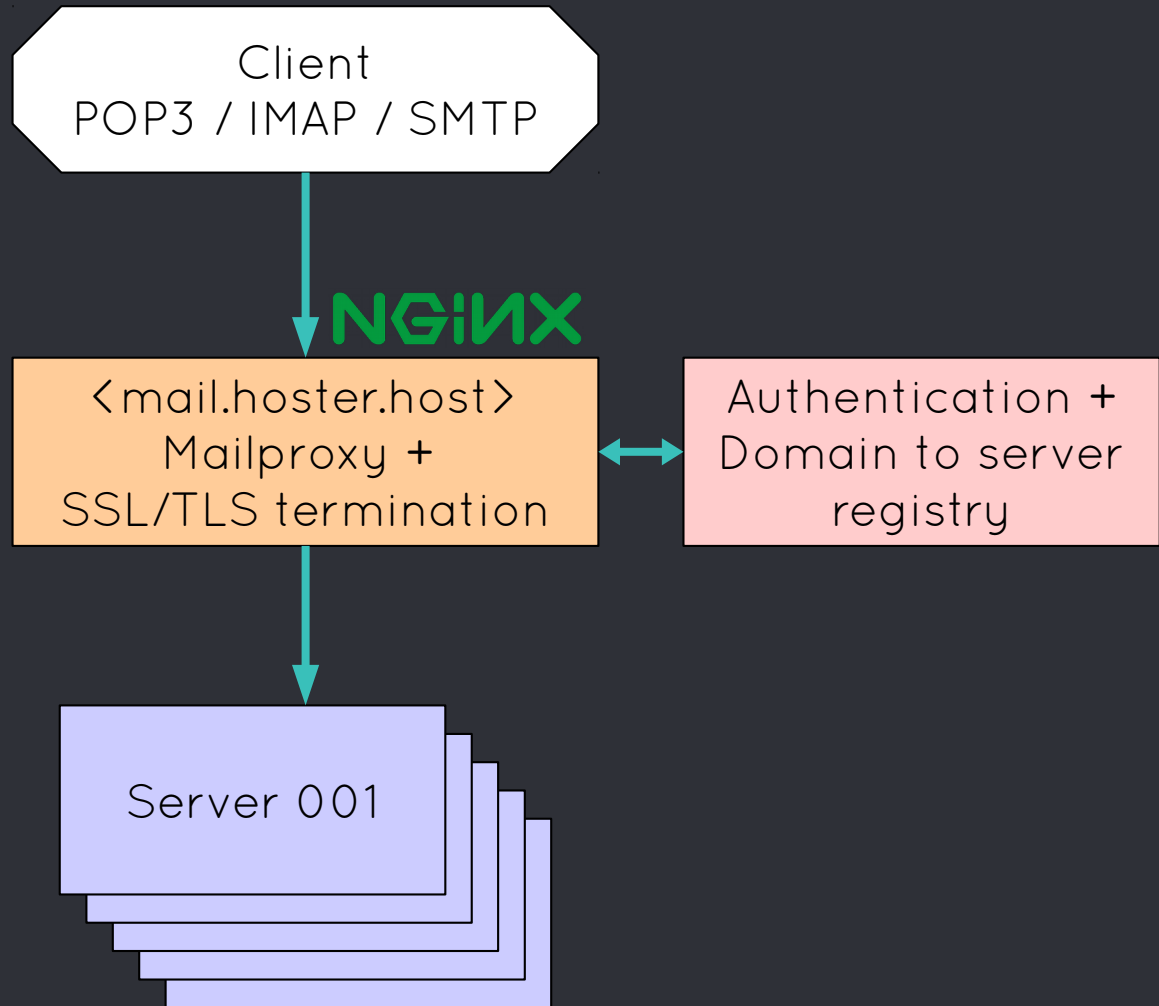
	banana.shop	s087.hoster.host	mail.hoster.host
SSL	✓ ⚡	✓	✓
Transfer resistant	✓ ⚡	✗	✓
Easy to communicate	✓	✗	✓
Provider change	✓	✗	✓

● CONCEPT





# PROTOTYPE



## NGINX AS MAILPROXY

```
mail {
    server_name      mail.example.com;
    auth_http        localhost:9000/cgi-bin/nginxauth.cgi;

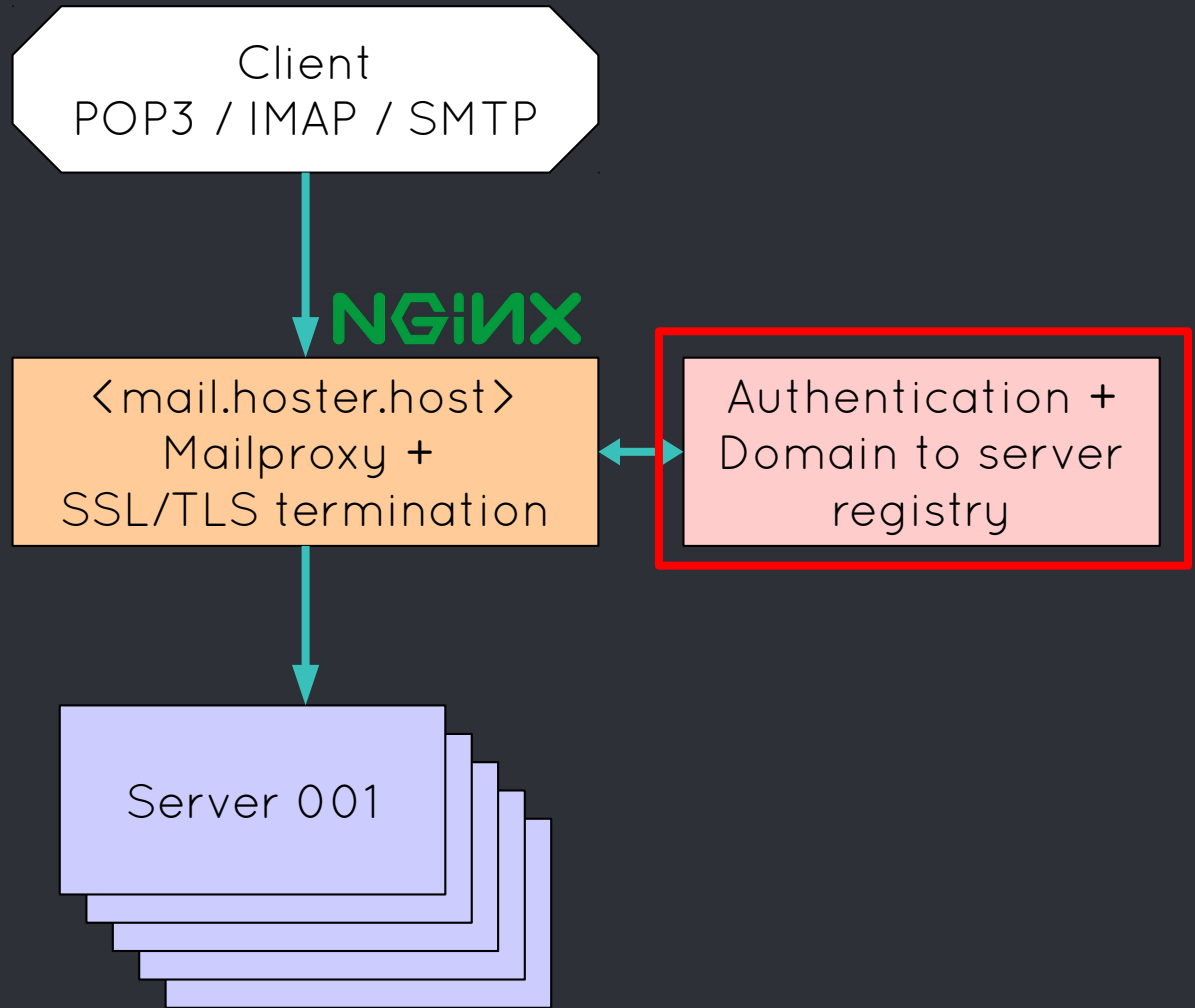
    imap_capabilities IMAP4rev1 UIDPLUS IDLE LITERAL+ QUOTA;

    pop3_auth        plain apop cram-md5;
    pop3_capabilities LAST TOP USER PIPELINING UIDL;

    smtp_auth        login plain cram-md5;
    smtp_capabilities "SIZE 10485760" ENHANCEDSTATUSCODES 8BITMIME DSN;
    xclient          on;

    server {
        listen      25;
        protocol    smtp;
    }
    server {
        listen      143;
        protocol    imap;
    }
    server {
        listen      587;
        protocol    smtp;
    }
}
```

● PROTOTYPE



## AUTHENTICATION + DOMAIN TO SERVER REGISTRY

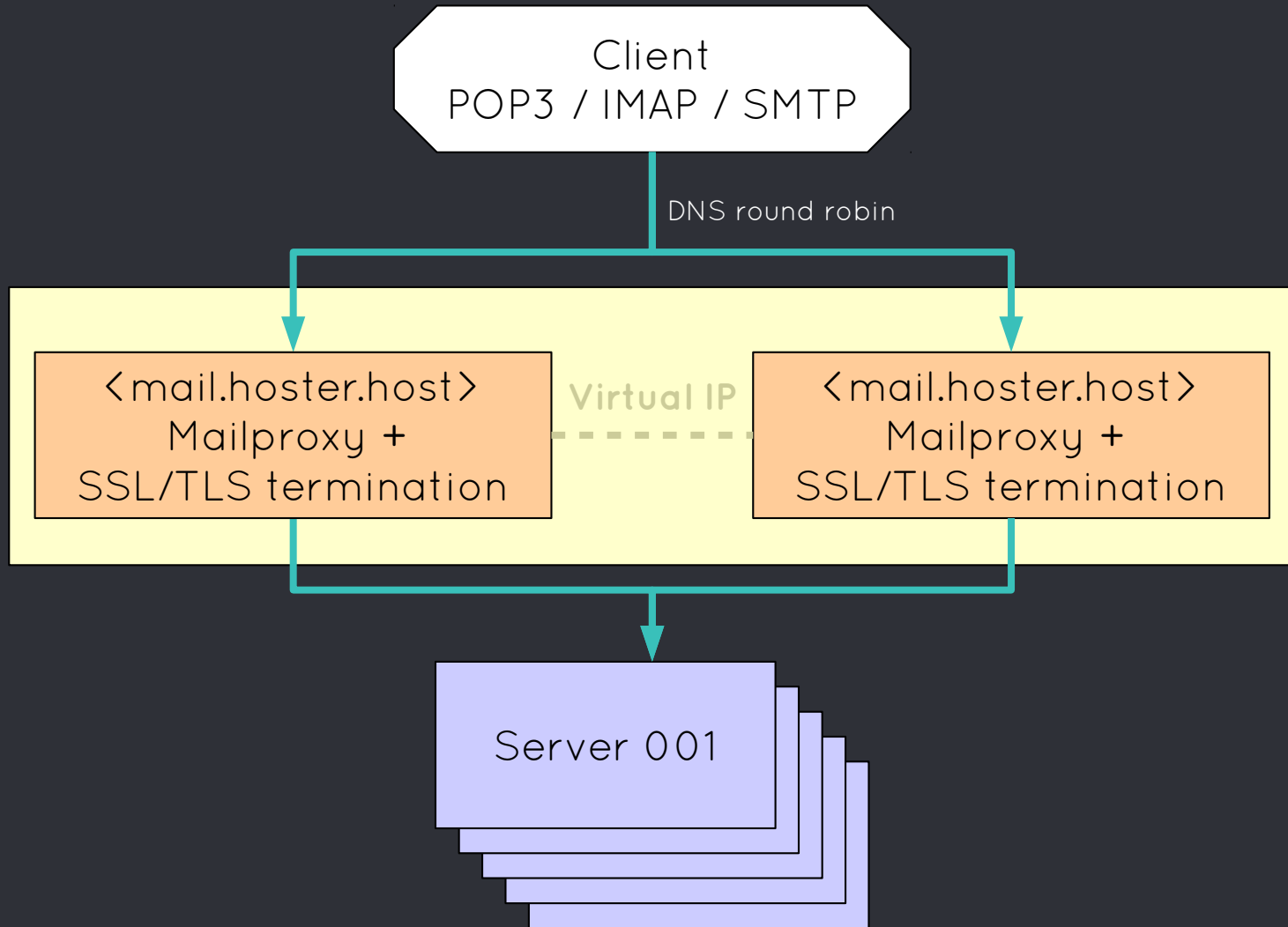
### Authentication

- Checks User/Pass
- Login check :2096
- Abuse detection

### Domain registry

- Translation/routing domain to cP server
- Internal registry
- DNS fallback
- Returns internal IP
- Caching is key

## PRODUCTION READY / HA SETUP



● MISSION ACCOMPLISHED

	banana.shop	s087.hoster.host	mail.hoster.host
SSL	✓ ⚡	✓	✓
Transfer resistant	✓ ⚡	✗	✓
Easy to communicate	✓	✗	✓
Provider change	✓	✗	✓



# EASY SETUP

Point configuration to mail.hoster.host



**DEMO**





## SECURITY

### **SSL/TLS ONLY**

Non encrypted connections are dropped

### **ANTI-ABUSE**

Intelligent Bruteforce detection

### **NGINX TRAFFIC**

The traffic from the nginx server to the cPanel server is unencrypted. Traffic goes over internal network



## PITFALLS

### HEAVY TRAFFIC

Burned by old network equipment

### LIABILITY

Don't screw with mail

### NGINX REALIP

cP maillogs are useless without real client IP

### CP SERVER DOWN

Licence problem = no login

### UMLAUTE PASS

Thunderbird and no UTF-8 support

### PROXY SUBDOMAINS

Hard to replace. DNS mass edit



**35'000'000 logins**

Per day

**30'000**

Connected mail clients at peak time

**2 servers**

In cluster and are mostly idle

## UPCOMING IMPROVEMENTS



### Extend stats

InfluxDB or Prometheus exporter



### Distributed Anti-Abuse

Deploy PowerDNS weakforced



### cPanel data hub

Replace domain to server lookup registry. Avoid single point of failure.



### Expand cluster

Add more server to the cluster



### Containerization

Package the software as container



### Open source

Share software components with the rest of the world.

**Thanks!**

**ANY QUESTIONS?**

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Please provide feedback: [go.cpanel.net/wednesday](https://go.cpanel.net/wednesday)