



MTU LUG  
GENERAL MEETING  
Feb 26th, 2015

# MEMBER NOTICES

- Who's third meeting is it? WELCOME OFFICIALLY!
- Join the Org on Involvement Link!
  - <https://www.involvement.mtu.edu/organization/lug>
  - Click the big "Join Organization" button!

# T-SHIRT STATUS

lug.mtu.edu



f



#mtu



f



# SERVER STATUS

- Gig Connection
- New IP Addresses
- IRC Client limit @ 40???
- Mirrors are great!



# LINUX NEWS

- LibreOffice 4.4.1 available for download!
- Net Neutrality!
- Fedora 22 entered Alpha freeze
- Tails 1.3 is released!
- Firefox 36 released! - HTTP/2 support!

WHAT DID YOU BREAK THIS  
WEEK?

# WEEKLY PRESENTATION



# HOW TO CONFIGURE NGINX!

By: Jared Ledvina



# HOSTING

Various VPS Providers  
Physical

Example: DigitalOcean

GitHub Student Pack  
\$100 credit!



# WHAT IS NGINX?

- Current Version: 1.7.10
- nginx [engine x] is an HTTP and reverse proxy server, as well as a mail proxy server, written by Igor Sysoev.

# BASIC SETUP

- Listening on port 80
- Root dir
- Static HTML files
- Error pages

```
1  server {
2      # IPv4 ports
3      listen 80 default_server;
4
5      # IPv6 ports
6      listen [::]:80 ipv6only=on default_server;
7
8      # Set default html to serve out
9      root /var/www/default;
10     index index.html index.htm;
11
12     # Turn off all access logs
13     # enable for specific location blocks below
14     access_log off;
15
16     # Make site accessible from http://lug.mtu.edu/
17     server_name lug.mtu.edu 141.219.155.233 2001:48a8:0:8:0:3:0:233;
18
19     # Custom error pages
20     error_page 403 /403.html;
21     error_page 404 /404.html;
22     # An attempt to not log 400 errors
23     # caused by centos/fedora yum plugin
24     error_page 400 /nolog;
25     location = /nolog {
26         access_log off;
27         return 400;
28     }
29
30     # Main LUG website
31     location / {
32         try_files $uri $uri/ =404;
33         ssi on;
34     }
35     error_log /var/log/nginx/error.log;
36     access_log /var/log/nginx/access.log;
37 }
```

# LET'S ADD PHP

```
1  server {
2      # IPv4 ports
3      listen 80 default_server;
4
5      # IPv6 ports
6      listen [::]:80 ipv6only=on default_server;
7
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30     # Main LUG website
31     location / {
32         try_files $uri $uri/ =404;
33         ssi on;
34         error_log /var/log/nginx/error.log;
35         access_log /var/log/nginx/access.log;
36
37     # Enable PHP on entire site
38     location ~ /\.php$ {
39         try_files $uri =404;
40         fastcgi_pass unix:/var/run/php5-fpm.sock;
41         fastcgi_index index.php;
42         fastcgi_param SCRIPT_FILENAME $document_root$fastcgi_script_name;
43         include fastcgi_params;
44     }
45 }
```

```

# Main LUG website
location / {
    try_files $uri $uri/ =404;
    ssi on;
    error_log /var/log/nginx/error.log;
    access_log /var/log/nginx/access.log;

    location /djangoapp {
        proxy_pass http://localhost:8000/;
        proxy_redirect off;
        proxy_buffering off;
        proxy_connect_timeout 10;
        proxy_read_timeout 10;
        proxy_set_header    Host                $host;
        proxy_set_header    X-Real-IP          $remote_addr;
        proxy_set_header    X-Forwarded-For    $proxy_add_x_forwarded_for;
        proxy_next_upstream error timeout invalid_header http_500 http_502 http_503 http
    }

# Enable PHP on entire site
location ~ /\.php$ {
    try_files $uri =404;
    fastcgi_pass unix:/var/run/php5-fpm.sock;
    fastcgi_index index.php;
    fastcgi_param SCRIPT_FILENAME $document_root$fastcgi_script_name;
    include fastcgi_params;
}
}

```

# BUT WHAT ABOUT MY DJANGO APP?

Proxying  
Additional Options

ERMAHGERD SECURITY

# GETTING AN SSL CERT FOR ~\$9

- Namecheap
- Comodo
- So easy.
- LUG USES IT!

The screenshot displays a product card for Comodo PositiveSSL. On the left, a dark grey box contains the price '\$9.00 /yr' in white, a dropdown menu set to '1 year', and a red 'Add to Cart' button. The main content area has a light grey background with the Comodo logo and 'PositiveSSL' title. Below this is a descriptive paragraph. To the right, a white sidebar lists features: 'Single Domain', '\$10,000 Warranty', '15-Day Refund', 'No Paperwork', and a 'Learn More' link.

**\$9.00** /yr

1 year

**Add to Cart**

**COMODO** PositiveSSL  
Creating Trust Online™

PositiveSSL is one of the most popular and inexpensive SSL certificates in the industry. This hassle-free certificate is the ideal choice for websites where the brand's trust is already established and organization verification is not needed. It's ideal for securing low-volume e-commerce websites.

- Single Domain
- \$10,000 Warranty
- 15-Day Refund
- No Paperwork
- [Learn More](#)

# NOW WHAT?

- New Server Block
- SSL/TLS
  - Stop using SSL
- Ciphers
  - Mozilla's List
- Certs Locations

```
1  server {
2      # IPv4 ports
3      listen 443 default_server;
4
5      # IPv6 ports
6      listen [::]:443 ipv6only=on default_server;
7
8      # Set default html to serve out
9      root /var/www/default;
10     index index.html index.htm;
11
12     access_log off;
13     server_name lug.mtu.edu 141.219.155.233 2001:48a8:0:8:0:3:0:233;
14
15     add_header Strict-Transport-Security "max-age=63072000;";
16     add_header X-Frame-Options DENY;
17     add_header X-Content-Type-Options nosniff;
18
19     ssl on;
20     ssl_certificate /etc/ssl/cert_chain.crt;
21     ssl_certificate_key /etc/ssl/private/server.key;
22     ssl_session_cache builtin:1000 shared:SSL:10m;
23     ssl_session_timeout 5m;
24     resolver 8.8.4.4 8.8.8.8 valid=300s;
25     resolver_timeout 10s;
26     ssl_ecdh_curve secp521r1;
27     ssl_protocols TLSv1.2 TLSv1.1 TLSv1;
28     ssl_prefer_server_ciphers on;
29     ssl_ciphers "ECDHE-RSA-AES128-GCM-SHA256:ECDHE-ECDSA";
30
31     # Main LUG website
32     location / {
33         try_files $uri $uri/ =404;
34         ssi on;
35     }
36     error_log /var/log/nginx/error.log;
37     access_log /var/log/nginx/access.log;
38 }
```



# THE RESULT!

- nginx serves out php files!
- nginx can proxy to the django app!
- SSL/TLS Security!

# MEETING CONCLUSION

- Presentation for next week?
- Anything we missed?