

web server

Notes for web server configuration

These notes capture actions taken to build the www vm around 9/15 to 10/1 2020.

packages to install

- php stuff and other packages needed :

```
sudo apt install memcached php7.4 php7.4-mysqli php7.4-fpm php7.4-mbstring php7.4-xml php7.4-  
imap php7.4-json php7.4-zip php7.4-gd php7.4-curl php7.4-ldap php7.4-gd php7.4-gmp php-par php-  
apcu jq unzip python3-pip --no-install-recommends
```

- Modules for languages from upstream:

Python: pip3 install certbot-dns-cloudflare josepy certbot cloudflare future certbot-dns-ovh

php modications

memcache

```
root@www:/etc/php/7.4/fpm/conf.d# grep -v ^; 20-memcache.ini
```

[extension=memcache.so](#)

```
[memcache]
```

```
memcache.allow_failover="1"
```

```
memcache.max_failover_attempts="20"
```

```
memcache.default_port="11211"
```

```
memcache.hash_strategy="consistent"
```

```
session.save_handler="memcache"
```

```
session.save_path = 'tcp://10.222.9.82:11211,tcp://10.222.9.83:11211,tcp://10.222.9.84:11211'
```

```
memcache.redundancy=1
```

```
memcache.session_redundancy=4
```

fpm (pool)

(still iterating on this, it's highly....ahem ... controversial) and much literature is available for reader evaluation :)

php config

Timezone

apache

apache configuration mods needed:

-- alter site config for fpm socket to php7.4-fpm (from 7.3) (socket path)

apache modules needed:

headers,deflate,rewrite,proxy,proxy_http,ssl,proxy_fcgi,cache_disk

apache tweaks performed:

```
1153 sudo a2dismod mpm_prefork
1154 sudo a2enmod mpm_event
1155 sudo apt install libapache2-mod-fcgid
1156 sudo a2enconf php7.2-fpm
1157 sudo a2enconf php7.-fpm
1158 sudo a2enconf php7.4-fpm
```

scripts to load

[newcert.sh](#)

```
#!/bin/bash

certbot certonly
--dns-cloudflare
--dns-cloudflare-credentials /root/cfapi.ini
-d $1
```

[sandstorm-cert.sh](#)

```
certbot certonly --manual --preferred-challenges dns --server https://acme-v02.api.letsencrypt.org/directory --manual-public-ip-logging-ok -d '*.sandstorm.turnsys.com' -d sandstorm.turnsys.com
```

TSYS root ca and UCS DC root cert

Without having the domain root cert present, none of the apps will be able to validate the domain controller certificate presented during authentication.

```
root@www:/usr/local/share/ca-certificates# ls -l
total 12
drwxr-xr-x 2 root root 4096 Sep 28 20:43 extra
lrwxrwxrwx 1 root root 13 Sep 28 20:44 tsys-root.crt -> tsys-root.pem
-r--r--r-- 1 root root 822 Sep 28 20:43 tsys-root.pem
lrwxrwxrwx 1 root root 12 Sep 28 20:44 ucs-root.crt -> ucs-root.pem
-rw-r--r-- 1 root root 2094 Sep 28 20:43 ucs-root.pem
root@www:/usr/local/share/ca-certificates#
```