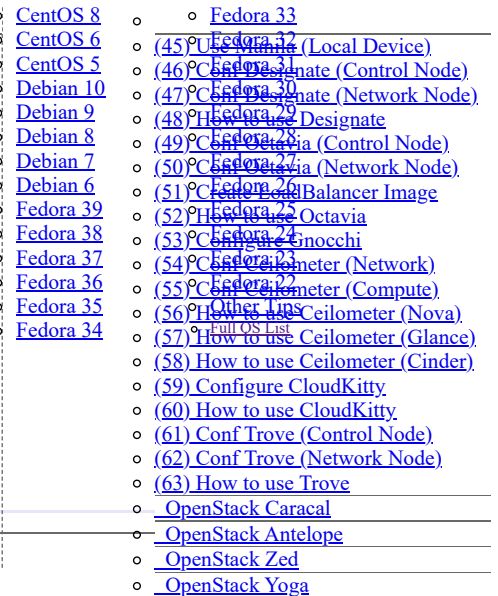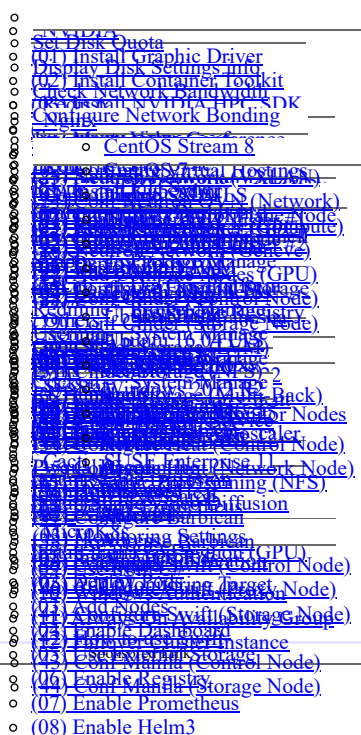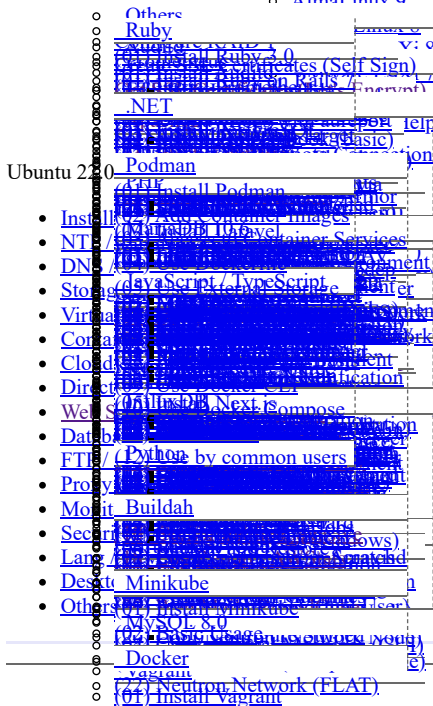Server World   Privacy Policy   Support/Contact us   33404 / 114452921

Apache2 : Configure mod_md 2022/05/10

Install and Configure [mod_md] to automate managing certificates from Let's Encrypt.
It's possible to configure for each VirtualHost.
And it's not need to configure manual SSL/TLS setting like here for the Site with [mod_md].
Also it needs that it's possible to access from the Internet to the Site with [mod_md] because of verification from Let's Encrypt.

[1] Install [mod_md].

```
root@www:~#
apt -y install libapache2-mod-md
```

[2] Configure [mod_md].

```
root@www:~#
vi /etc/apache2/conf-available/acme.conf
# create new


MDBaseServer               on
MDCertificateProtocol      ACME
MDCAChallenges             http-01
MDDriveMode                auto
MDPrivateKeys              RSA 2048
MDRenewWindow              33%
MDStoreDir                 md
MDCertificateAuthority     https://acme-v02.api.letsencrypt.org/directory
MDCertificateAgreement     https://letsencrypt.org/documents/LE-SA-v1.2-November-15-2017.pdf

<Location "/md-status">
    SetHandler md-status
    Require ip 127.0.0.1 10.0.0.0/24
</Location>

# [MDRenewWindow]
# default is [33%] if not specified
# if validity of certificates falls specified duration,
# [mod_md] will get new certificates
# 90 days * 33% ≒ 30 days
# if you'd like to set with day, specify [d]
# 30 days ⇒ [30d]


# [MDStoreDir]
```

```
# the directory certificates or other data are stored
# if not specified, default is [md]
# it is relative path from [ServerRoot] in [httpd.conf]

# [md-status]
# monitor MD status
```

[3] Configure each VirtualHost you'd like to set [mod_md].
It needs to specify valid email address for each [ServerAdmin] directive because Let's Encrypt will send various notification.

for example, set on the site [rx-9.srv.world] site

root@www:~#
vi /etc/apache2/sites-available/rx-9.srv.world.conf

```
MDomain rx-9.srv.world
MDCertificateAgreement accepted
DirectoryIndex index.html
ServerAdmin root@rx-9.srv.world

<VirtualHost *:80>
    DocumentRoot /var/www/rx-9
    ServerName rx-9.srv.world
</VirtualHost>

<VirtualHost *:443>
    SSLEngine on
    DocumentRoot /var/www/rx-9
    ServerName rx-9.srv.world
</VirtualHost>
```

root@www:~#
a2enmod md

```
Enabling module md.
To activate the new configuration, you need to run:
  systemctl restart apache2
```

root@www:~#
a2enconf acme

```
Enabling conf acme.
To activate the new configuration, you need to run:
  systemctl reload apache2
```

root@www:~#
a2ensite rx-9.srv.world

```
Enabling site rx-9.srv.world.
To activate the new configuration, you need to run:
  systemctl reload apache2
```

root@www:~#
systemctl restart apache2
on initial loading, some validation checks run and
dumy certificate is created under the directory you set for [MDStoreDir]

root@www:~#
ll /etc/apache2/md/domains/rx-9.srv.world

```
total 20
drwx------ 2 root root 4096 May 10 05:13 ./
drwx------ 3 root root 4096 May 10 05:13 ../
-rw------- 1 root root 1704 May 10 05:13 fallback-privkey.pem
-rw------- 1 root root 1168 May 10 05:13 fallback-pubcert.pem
-rw------- 1 root root  581 May 10 05:13 md.json
```

reload again

root@www:~#
systemctl reload apache2
if all checks passed, valid certificate is gotten

root@www:~#
ll /etc/apache2/md/domains/rx-9.srv.world

```
total 32
drwx------ 2 root root 4096 May 10 05:14 ./
```

```
drwx------ 3 root root 4096 May 10 05:14 ../
-rw------- 1 root root 4895 May 10 05:14 job.json
-rw------- 1 root root  578 May 10 05:14 md.json
-rw------- 1 root root 1704 May 10 05:14 privkey.pem
-rw------- 1 root root 5591 May 10 05:14 pubcert.pem
```

[4] It's possible to confirm expiration date and others of certificate with [openssl] command like follows.
Or it's possible to see them to access to the URL of [md-status] you set on [2].

```
root@www:~#
openssl s_client -connect rx-9.srv.world:443 | openssl x509 -noout -startdate -enddate


depth=2 C = US, O = Internet Security Research Group, CN = ISRG Root X1
verify return:1
depth=1 C = US, O = Let's Encrypt, CN = R3
verify return:1
depth=0 CN = rx-9.srv.world
verify return:1
notBefore=May 10 04:14:04 2022 GMT
notAfter=Aug  8 04:14:03 2022 GMT
```
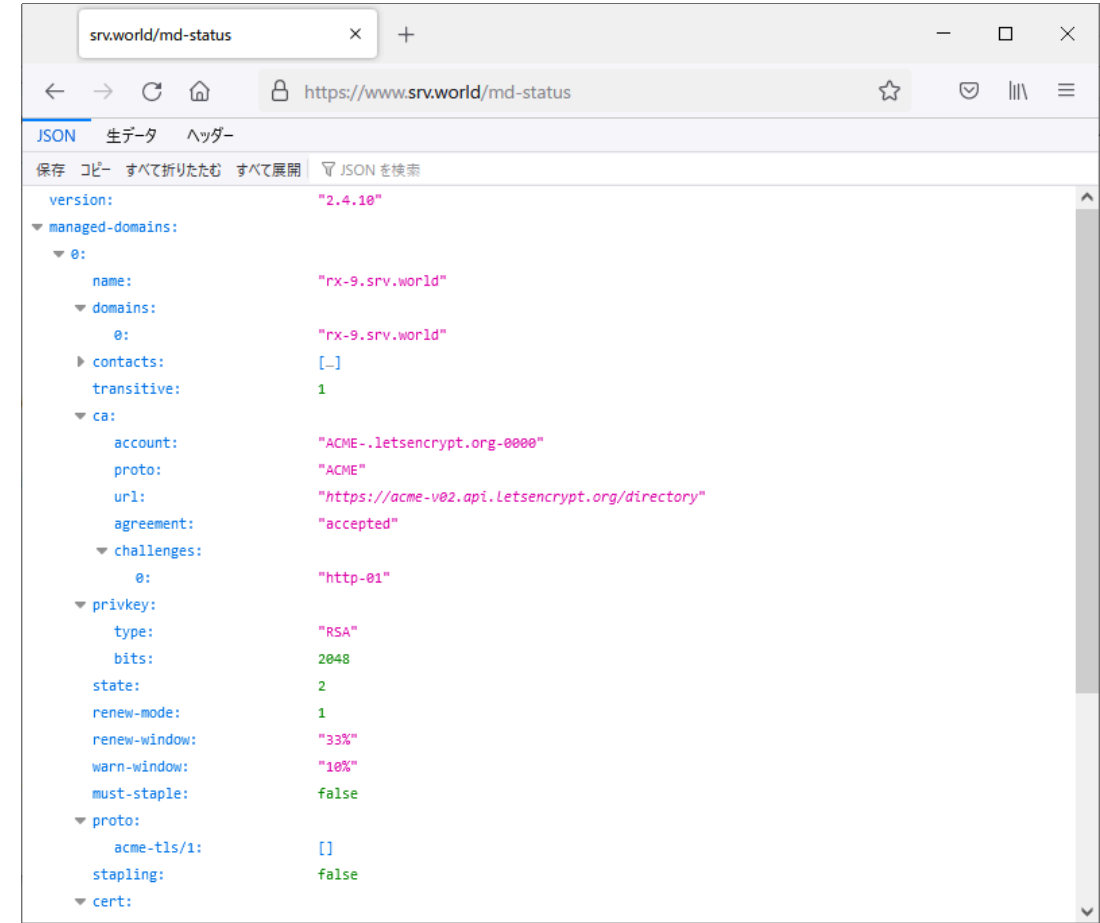
M a t c h e d   C o n t e n t

Ubuntu 22.04 : Apache2

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- [(12) Configure mod_md](#)
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