

OpenSSL - plik konfiguracyjny

Położenie: /etc/ssl/openssl.cnf

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Zawartość pliku

```
HOME = .
RANDFILE = $ENV::HOME/.rnd
#oid_file = $ENV::HOME/.oid
oid_section = new_oids

[ new_oids ]
tsa_policy1 = 1.2.3.4.1
tsa_policy2 = 1.2.3.4.5.6
tsa_policy3 = 1.2.3.4.5.7

#####
[ ca ]
default_ca = CA_default # The default ca section

#####
[ CA_default ]
dir = ./demoCA # Where everything is kept
certs = $dir/certs # Where the issued certs are kept
crl_dir = $dir/crl # Where the issued crl are kept
database = $dir/index.txt # database index file.
#unique_subject = no # Set to 'no' to allow creation of several
ctificates with same subject.
new_certs_dir = $dir/newcerts # default place for new certs.
certificate = $dir/cacert.pem # The CA certificate
serial = $dir/serial # The current serial number
crlnumber = $dir/crlnumber # the current crl number must be com-
mented out to leave a V1 CRL
crl = $dir/crl.pem # The current CRL
private_key = $dir/private/cakey.pem # The private key
RANDFILE = $dir/private/.rand # private random number file
x509_extensions = usr_cert # The extensions to add to the cert

# Comment out the following two lines for the "traditional" (and highly broken) format.
name_opt = ca_default # Subject Name options
cert_opt = ca_default # Certificate field options

# Extension copying option: use with caution.
# copy_extensions = copy

# Extensions to add to a CRL. Note: Netscape communicator chokes on V2 CRLs so this is com-
mented out by default to leave a V1 CRL. Option crlnumber must also be commented out to leave
a V1 CRL.
# crl_extensions = crl_ext

default_days = 365 # how long to certify for
default_crl_days = 30 # how long before next CRL
default_md = default # use public key default MD
preserve = no # keep passed DN ordering

# A few difference way of specifying how similar the request should look. For type CA, the listed
attributes must be the same, and the optional and supplied fields are just that :-)
policy = policy_match

# For the CA policy. (Tego nie należy zmieniać).
```

[policy_match]

```
countryName           = match
stateOrProvinceName  = match
organizationName      = match
organizationalUnitName = optional
commonName            = supplied
emailAddress          = optional
```

For the 'anything' policy. At this point in time, you must list all acceptable 'object' types. (Tego także nie należy zmieniać).

[policy_anything]

```
countryName           = optional
stateOrProvinceName  = optional
localityName          = optional
organizationName      = optional
organizationalUnitName = optional
commonName            = supplied
emailAddress          = optional
```

#####

[req]

```
default_bits          = 1024
default_keyfile       = privkey.pem
distinguished_name    = req_distinguished_name
attributes            = req_attributes
x509_extensions      = v3_ca # The extensions to add to the self signed cert
```

Passwords for private keys if not present they will be prompted for.

```
# input_password      = secret
# output_password     = secret
```

This sets a mask for permitted string types. There are several options.

```
# default: PrintableString, T61String, BMPString.
# pkix    : PrintableString, BMPString (PKIX recommendation before 2004)
# utf8only: only UTF8Strings (PKIX recommendation after 2004).
# nombstr : PrintableString, T61String (no BMPStrings or UTF8Strings).
# MASK:XXXX a literal mask value.
```

```
string_mask          = utf8only
```

```
# req_extensions      = v3_req # The extensions to add to a certificate request
```

Dopiero tę sekcję należy uzupełnić (ponoć nie używamy polskich znaków):

[req_distinguished_name]

```
countryName          = PL
countryName_default  = PL
countryName_min      = 2
countryName_max      = 2
stateOrProvinceName = Slask
stateOrProvinceName_default = Slask
localityName         = Tychy
0.organizationName   = 3bird Projects
0.organizationName_default = 3bird Projects
organizationalUnitName = Creative Department
#organizationalUnitName_default =
commonName           = asus-i7.3bird # nazwa domeny lub nazwa hosta (serwera)
commonName_max       = 64
emailAddress         = robertsurma@3bird.pl
emailAddress_max     = 64
```

[req_attributes]

Wymagane do ponownej reinstalacji certyfikatów, powinno różnić się od passphrase:

```
challengePassword      = A challenge password
challengePassword_min  = 4
challengePassword_max  = 20
```

```
# unstructuredName     = An optional company name
```

[usr_cert]

These extensions are added when 'ca' signs a request. This goes against PKIX guidelines but some CAs do it and some software requires this to avoid interpreting an end user certificate as a CA.

```
basicConstraints       = CA:FALSE
```

Here are some examples of the usage of nsCertType. If it is omitted the certificate can be used for anything *except* object signing.

This is OK for an SSL server.

```
# nsCertType           = server
```

For an object signing certificate this would be used.

```
# nsCertType = objsign
```

For normal client use this is typical

```
# nsCertType = client, email
```

and for everything including object signing:

```
# nsCertType = client, email, objsign
```

This is typical in keyUsage for a client certificate.

```
# keyUsage = nonRepudiation, digitalSignature, keyEncipherment
```

This will be displayed in Netscape's comment listbox.

```
nsComment              = "OpenSSL Generated Certificate"
```

PKIX recommendations harmless if included in all certificates.

```
subjectKeyIdentifier   = hash
```

```
authorityKeyIdentifier = keyid,issuer
```

This stuff is for subjectAltName and issuerAltname. Import the email address.

```
# subjectAltName       = email:copy
```

An alternative to produce certificates that aren't deprecated according to PKIX.

```
# subjectAltName       = email:move
```

Copy subject details

```
# issuerAltName        = issuer:copy
```

```
#nsCaRevocationUrl    = http://www.domain.dom/ca-crl.pem
```

```
#nsBaseUrl
```

```
#nsRevocationUrl
```

```
#nsRenewalUrl
```

```
#nsCaPolicyUrl
```

```
#nsSslServerName
```

This is required for TSA certificates.

```
# extendedKeyUsage    = critical,timeStamping
```

[v3_req]

Extensions to add to a certificate request.

```
basicConstraints       = CA:FALSE
```

```
keyUsage               = nonRepudiation, digitalSignature, keyEncipherment
```

[v3_ca]

```
# Extensions for a typical CA.
# PKIX recommendation.
subjectKeyIdentifier    = hash
authorityKeyIdentifier  = keyid:always,issuer

# This is what PKIX recommends but some broken software chokes on critical extensions.
#basicConstraints      = critical,CA:true
# So we do this instead.
basicConstraints       = CA:true

# Key usage: this is typical for a CA certificate. However since it will prevent it being used as an
# test self-signed certificate it is best left out by default.
# keyUsage             = cRLSign, keyCertSign

# Some might want this also
# nsCertType           = sslCA, emailCA

# Include email address in subject alt name: another PKIX recommendation.
# subjectAltName       = email:copy
# Copy issuer details.
# issuerAltName        = issuer:copy

# DER hex encoding of an extension: beware experts only!
# obj                  = DER:02:03
# Where 'obj' is a standard or added object. You can even override a supported extension:
# basicConstraints    = critical, DER:30:03:01:01:FF
```

[crl_ext]

```
# CRL extensions. Only issuerAltName and authorityKeyIdentifier make any sense in a CRL.
# issuerAltName        = issuer:copy
authorityKeyIdentifier = keyid:always
```

[proxy_cert_ext]

```
# These extensions should be added when creating a proxy certificate. This goes against PKIX guidelines but some CAs do it and some software requires this to avoid interpreting an end user certificate as a CA.
```

```
basicConstraints      = CA:FALSE
# Here are some examples of the usage of nsCertType. If it is omitted the certificate can be used
# for anything *except* object signing.
# This is OK for an SSL server.
# nsCertType          = server

# For an object signing certificate this would be used.
# nsCertType          = objsign

# For normal client use this is typical
# nsCertType          = client, email

# and for everything including object signing:
# nsCertType          = client, email, objsign

# This is typical in keyUsage for a client certificate.
# keyUsage            = nonRepudiation, digitalSignature, keyEncipherment

# This will be displayed in Netscape's comment listbox.
nsComment             = "OpenSSL Generated Certificate"

# PKIX recommendations harmless if included in all certificates.
```

```

subjectKeyIdentifier      = hash
authorityKeyIdentifier    = keyid,issuer

# This stuff is for subjectAltName and issuerAltname. Import the email address.
# subjectAltName          = email:copy
# An alternative to produce certificates that aren't deprecated according to PKIX.
# subjectAltName          = email:move

# Copy subject details
# issuerAltName           = issuer:copy

#nsCaRevocationUrl        = http://www.domain.dom/ca-crl.pem
#nsBaseUrl
#nsRevocationUrl
#nsRenewalUrl
#nsCaPolicyUrl
#nsSslServerName

# This really needs to be in place for it to be a proxy certificate.
proxyCertInfo             = critical,language:id-ppl-anyLanguage,pathlen:3,policy:foo

#####
[ tsa ]
default_tsa                = tsa_config1                # the default TSA section

[ tsa_config1 ]
# These are used by the TSA reply generation only.
Dir                        = ./demoCA                  # TSA root directory
serial                     = $dir/tsaserial             # The current serial number (mandatory)
crypto_device              = builtin                   # OpenSSL engine to use for signing
signer_cert                = $dir/tsacert.pem           # The TSA signing certificate (optional)
certs                      = $dir/cacert.pem            # Certificate chain to include in reply (optional)
signer_key                 = $dir/private/tsakey.pem     # The TSA private key (optional)
default_policy              = tsa_policy1               # Policy if request did not specify it (optional)
other_policies              = tsa_policy2, tsa_policy3  # acceptable policies (optional)
digests                    = md5, sha1                 # Acceptable message digests (mandatory)
accuracy                   = secs:1, millisecs:500, microseconds:100
clock_precision_digits     = 0                          # number of digits after dot. (optional)
ordering                   = yes                       # Is ordering defined for timestamps?
(optional, default: no)
tsa_name                   = yes                       # Must the TSA name be included in the reply? (optional, default: no)
ess_cert_id_chain          = no                       # Must the ESS cert id chain be included?
(optional, default: no)

```

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