gnutls

Since GnuTLS is implemented in C objects are not quite easy to separate. Here we list the structures and the functions available for them. Not all functions are listed. Only the most important ones.

credentials

certificate_credentials

```
-dh_parameters: gnutls_dh_params_t
-rsa_export_parameters: gnutls_rsa_params_t
-verify_flags: unsigned int = 0
-trusted_cas: gnutls_x509_crt_t*
-crl_list: gnutls_x509_crl_t*
-certificate: gnutls_x509_crt_t
-key: gnutls_x509_privkey_t
+set_dh_params(in dh_params:gnutls_dh_params_t): void
+set_rsa_export_params(in rsa_params:gnutls_rsa_params_t): void
+set_verify_flags(in flags:unsigned int): void
+set_x509_trust_file(in ca_file:const char* ,
                     in type:gnutls_x509_crt_fmt_t): int
+set_x509_crl_file(in crlfile:const char *,
                   in type:gnutls_x509_crt_fmt_t): int
+set_x509_key_file(in cert_file:const char*,
                   in key_file:const char*): int
```

anonymous_server_credentials

```
-dh_parameters: gnutls_dh_params_t
+set_params_function(in func:gnutls_params_function*): void
+set_server_dh_params(in params:gnutls_dh_params_t): void
```

psk_client_credentials

```
-username: char*
-key: unsigned char*
-credentials_function: gnutls_psk_client_credentials_function
+set_client_credentials(in username:const char*,
                        in key:const unsigned char*): int
+set_client_credentials_function(in func:gnutls_psk_client_credentials_function*): void
```

srp_server_credentials

```
-password_file: char*
-password_conf_file: char*
-credentials_function: gnutls_srp_server_credentials_function
+set_server_credentials_file(in passwd:const char*,
                             in passwd_conf:const char*): int
+set_server_credentials_function(in func:gnutls_srp_server_credentials_function*): void
```

psk_server_credentials

```
-key_file: char*
-credentials_function: gnutls_psk_server_credentials_function
+set_server_credentials_file(in passwd:const char*): int
+set_server_credentials_function(in func:gnutls_psk_server_credentials_function*): void
```

srp_client_credentials

```
-username: char*
-password: char*
-credentials_function: gnutls_srp_client_credentials_function
+set_client_credentials(in username:const char*,
                        in password:const char*): int
+set_client_credentials_function(in func:gnutls_srp_client_credentials_function*): void
```

session

```
-sessionID
-securityParameters
-sessionData
-credentials: credentials*
-transport: session_transport = BSD sockets
-database: session_db
+record_send(in data:void*,in data_size:size_t): int
+record_recv(out data:void*,in data_size:size_t): int
+handshake(): int
+session_set_data(in session_data:void*,
                  in session_data_size:size_t): int
+session_get_data(out session_data:void*,
                  inout session_data_size:size_t*): int
+transport_set_ptr(in ptr:gnutls_transport_ptr): void
+gnutls_transport_set_push_function(in push_func:gnutls_push_func): void
+gnutls_transport_set_pull_function(in pull_func:gnutls_pull_func): void
+gnutls_db_set_ptr(in ptr:void*): void
+gnutls_db_set_store_function(in store_func:gnutls_db_store_func): void
+gnutls_db_set_remove_function(in remove_func:gnutls_db_remove_func): void
+gnutls_db_set_retrieve_function(in retr_func:gnutls_db_retr_func): void
```

session_db

```
-cash_expiration: int
-db_ptr: void*
-retrieve(in db_ptr:void*,in key:gnutls_datum_t): gnutls_datum_t
-store(in db_ptr:void*,key:gnutls_datum_t,
       value:gnutls_datum_t): int
-delete(in db_ptr:void*,key:gnutls_datum_t): int
```

session_transport

```
-transport_ptr: gnutls_transport_ptr_t
-send(in s:gnutls_transport_ptr_t,in data:const void*,
      in data_size:size_t): ssize_t
-recv(in s:gnuls_transport_ptr_t,out data:void*,
      in data_size:size_t): ssize_t
```

These are actually operations on the session type. However for ease of reading they are listed as separate objects with operations.