**CrypToolStoreServer – “general ideas” - whitepaper**

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The **CrypToolStoreServer** offers different methods, which can be used by **CrypToolStoreDeveloperClient** and by **CrypToolStoreClient.**

Connections between **CrypToolStoreServer** and **CrypToolStoreDeveloperClient** as well as connections between **CrypToolStoreServer** and **CrypToolStoreClient** are secured using TLS.

Everything a developer does has to be authenticated. To do so, the client first creates a session using his username, password. The server returns a 16byte session id, which is used then for authentication.

CrypTool 2 users may call “their” methods without any authentication.

Methods (callable by a to-be-developed network protocol):

Only for developers:

* CreateNewDeveloperAccount
* CreateSession
* Refresh Session
* UpdateDeveloperAccount
* ChangePassword
* ListPluginsDeveloper
* CreatePlugin
* UpdatePlugin
* DeletePlugin
* UploadSourceCode
* UpdateSourceCode
* DeleteSourceCode
* ListSourceCode
* CreateResource
* UpdateResource
* DeleteResource
* ListResourcesDeveloper

For CrypToolStore users:

* ListPluginUser
* DownloadPlugin
* ListResourcesUser
* DownloadResource

**CreateNewDeveloperAccount:**

Method to create a new developer account, which allows uploading to CrypToolStore.

Parameters: username, firstname, lastname, email, password

Password is securely stored in the database using PBKDF2.

Connection is secured using TLS.

**CreateSession:**

Creates a login session. A session has a timeout of 30 minutes. Session id is a random 16byte number generated by the server and returned to the client.

Parameters: username, password (for authentication)

**RefreshSession:**

Used by the client to refresh the current session.

Parameters: sessionid

**UpdateDeveloperAccount:**

Method to update the information of the developer account.

Parameters: sessionid, firstname, lastname, email, password (for authentication)

Connection is secured using TLS.

**ChangePassword:**

Method to update the developer password.

Parameters: sessionid, oldpassword, newpassword

Password is securely stored in the database using PBKDF2.

Connection is secured using TLS.

**ListPluginsDeveloper:**

Method to list all plugins and sources a developer uploaded.

Parameters: sessionid

Connection is secured using TLS.

**CreatePlugin:**

Method to create a new plugin in the store.

Parameters: sessionid, pluginname, pluginshortdescription, pluginlongdescription, authornames, authoremails, authorinstitutes, pluginicon, activeversion, publish

**UpdatePlugin:**

Method to update data of a plugin in the store.

Parameters: sessionid, pluginid, pluginname, pluginshortdescription, pluginlongdescription, authornames, authoremails, authorinstitutes, pluginicon, activeversion, publish

**DeletePlugin:**

Method to delete plugin from store.

Parameters: sessionid, pluginid