Heimdall

V1.1.0 – 2025-10-12 by Septirage

Guide for Admin

Requirements

To use Heimdall you will need :

- [Nwnx4](#)
- xp_bugfix
- xp_msgServer
- xp_mysql

Installation of Heimdall :

Ensure you have installed and configured:
- NWNX4 with xp_msgServer, xp_bugfix and xp_mysql plugins.
- A MySQL/MariaDB database accessible by NWNX4

In the xp_msgServer ini file :
- set UseConnectionSystem = 1
- set OnConnectionScript = sept_heimdall_onconnection

Prepare Heimdall files :
- Put sept_heimdall_login.xml and sept_heimdall_register.xml in your hak files.
- Import the nss files in your module.

Configure Heimdall. For that, read the following part.
Pay specific attention to "PasswordSecurity" in the "Other Changes" section.

Configuration of Heimdall:

Sept_heimdall_config.NSS : This is the file that you want to change to adjust heimdall to your needs.
Here is the list of options and changes.

BEHAVIOR part:
- SEPT_HEIMDALL_ALLOW_REGISTRATION— set to TRUE to allow people to register. FALSE otherwise.
- SEPT_HEIMDALL_ALLOW_REMEMBER — If set to TRUE, players will be able to check the "remember me" box so they will be automatically connected next time.
- SEPT_HEIMDALL_SECURITY_BADPASSWORD_RETRIES— The number of successive bad passwords during login before the IP/account is rate-limited.
- HEIMDALL_SECURITY_BADPASSWORD_COOLDOWN— Duration of the rate-limit when too many bad passwords have been entered.

- SEPT_HEIMDALL_DBNAME_ACCOUNTS— Name of the database table that will be used to store accounts
- SEPT_HEIMDALL_DBNAME_REMEMBERED— Name of the database table that will be used to store connections information.

LOCALIZATION part:

Adapt texts to your language. Don't forget SEPT_HEIMDALL_SERVERNAME.

CUSTOMIZATION part:

Heimdall provides several functions you can customize in sept_heimdall_config.nss:

Heimdall_IsLoginAllowed:

Add custom logic to refuse login (Name, CDKey or IP bans, time restrictions, etc.) Returns "" to allow login, or an error message to refuse. Example: Return "Server is closed for maintenance" to block all logins.

Heimdall_CheckAccountPolicy

Define rules for acceptable account names (length, characters, etc.) Default: 3-32 characters. Modify to add your own restrictions.

Heimdall_CheckPasswordPolicy

Define password strength requirements. Default: 8+ chars, 1 lowercase, 1 uppercase, 1 number. Modify to add special character requirements, etc.

GUI Customization

Heimdall_OpenLoginGUI() and Heimdall_OpenRegisterGUI() control the displayed screens. Modify these if you want to change the GUI appearance or add custom elements.

OTHER changes:

CDKey test: If you want to store and test "remember me" connection with cdkeys, you will need to uncomment related code part in Heimdall_ModuleInit, Heimdall_IsRemembered and Heimdall_RememberPlayer.

PasswordSecurity : **IMPORTANT**

While MsgServer and Heimdall itself pay attention to avoid logging entered passwords, xp_mysql with its default configuration can expose passwords in log files. To mitigate this, Heimdall calls the ObfuscatePasswordToHex function, but this is only a last resort solution.

We STRONGLY RECOMMEND setting xp_mysql loglevel to "warning" or lower to avoid INFO-level logging.
- **If you disable INFO-level logging**: You can safely remove the calls to ObfuscatePasswordToHex in Heimdall_RegisterNewAccount and Heimdall_CheckPasswordMatch.
- **If you keep INFO-level logging:** You MUST change the sPepper value in ObfuscatePasswordToHex to a unique secret string. Note that it's not a real encryption but it's better than nothing.