GIBRALTAR GAMBLING COMMISSIONER – EVALUATION REPORT

FOR

MAVERICK ELYSIUM

SPIRIT HUNTERS,

HTML5-DESKTOP; HTML5-MOBILE,

1.0

CONFIDENTIAL

CERTIFICATE NUMBER: E221895MTLGIBM

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SECTION 1. GENERAL INFORMATION

Operator:	N/A
Software Provider:	Maverick ELYSIUM
Product Name:	Spirit Hunters
Product Type:	Slot Game
eCOGRA Proposal Number:	p21536MTLMULCGM
Applicable Technical Standards:	Remote Technical and Operating Standards for the Gibraltar Gambling Industry, Gambling Commissioner's Guidelines – v.1.1.0 (the 'RTOS')
Testing Laboratory:	eCOGRA Limited 2/F Berkeley Square House Berkeley Square London W1J 6 BD United Kingdom
Test Engineer:	Ethic Hadebe; Masego Msomi; Josephine Govender; Tyrone Rajah
Supervisor:	Thabang Maganedisa
Request for Report:	17 February 2022
Report Date:	24 February 2022
Report Number:	e221895MTLGIBM

I hereby certify that the slot game Spirit Hunters complies with the relevant sections of the RTOS, as described in Section 5 of this report.

Gary Lupton-Smith

Technical Services Manager,
eCOGRA

SECTION 2. INTRODUCTION

eCOGRA has been appointed by Maverick ELYSIUM to review the Linux 3.10.0-957.1.3.el7.x86_64 Spirit Hunters for compliance with the RTOS, and to highlight any exceptions identified during testing.

This report highlights our key findings as a result of the testing performed in a test environment established at Maverick ELYSIUM operations during the period 17 February 2022 to 24 February 2022

Please note that this is an initial certification conducted over Spirit Hunters HTML5-Desktop; HTML5-Mobile and therefore this game certificate does not supersede any previous certifications.

SECTION 3. GAMES DESCRIPTION

Spirit Hunters, 1.0

Game Description:

SPIRIT HUNTER is an Asian theme game which DEMANDS THE PLAYERS ENGAGEMENT. With FAT TILES

characters, created with astonishing graphics and FREE SPINS and a CRAZY AND PLAYFUL BONUS LEVEL, you will experience a NEW TYPE OF A SLOT GAME!

Further details regarding the betting characteristics, features and detailed game rules can be found in the game instructions which can be provided upon request.

SECTION 4. SOFTWARE DETAILS

Details of the software tested during this evaluation are as follows:

HTML5-Desktop; HTML5-Mobile – Spirit Hunters

File Name / Identifier	Version Date	Version Number	Binary SHA#1 Hash
mvgEngineGodot2.yml	N/A	N/A	4f27c7936cc1b242bad459b47cf62208b44dba67
mvgEngineGodot3.yml	N/A	N/A	8914afaef6e17a9243dd806c95c6e5ceb8e93e0e
mvgEngineI.yml	N/A	N/A	1c792b7d94f377e2398879b4c7d0112f63460652
mvgEngineII.yml	N/A	N/A	200dce848a47ea31c7ce9b9039674ff66c332607
mvgEngineIII.yml	N/A	N/A	fdb2ca393bb9efcf2b985c48c0e36f33271e9ded
mvgEngineIX.yml	N/A	N/A	6b7520c5f9d2b730290ad3acd346ddb1393fe0f4
mvgEngineRoulette1.yml	N/A	N/A	d95fc66af4f3d1041c7a409965464f0a84cb3821
mvgEngineUnity1.yml	N/A	N/A	25d3a5b30a9ee45c57de9a1c923a902e5beb7452
mvgEngineV.yml	N/A	N/A	ae94f316bd02cf2944c47e122970c5812b8180a4
mvgEngineVII.yml	N/A	N/A	740bc0c8691639bde0f093f8b6ca4bb643bb7901
mvgEngineX.yml	N/A	N/A	79961ce8e324360c7854d6fa78dfc7c4f93a860d
mvgEngineXI.yml	N/A	N/A	d8205b0a16d837329a2b24544175d0dbb0b94988
mvgEngineXII.yml	N/A	N/A	738f2a5c4e76502edbeb74ebeab41194aefa6b31
mvgEngineXIII.yml	N/A	N/A	39a079de0666e55258f5bf44f8a51b0893677e8d
mvgEngineXIV.yml	N/A	N/A	5648260ef5359444ed6acbd27be8dbe0c40fdcd2
mvgEngineXV.yml	N/A	N/A	665449cf532cefc6ce6de0ba7a6646176ee0e042
mvgEngineXVI.yml	N/A	N/A	521b67b43b2a86959d1f505a90b9a9d2e7c21b80
mvgEngineXVII.yml	N/A	N/A	a16848e96d9726d2f1a01f661de3b8a9d41ff7e5
mvgEngineXVIII.yml	N/A	N/A	c8c52c7cf35abe274c659f6df5b30f880f87ea9c
testRespin.yml	N/A	N/A	a0a9535b3b166175824f98c7386d4c3f158a62ac

RNG

File Name	Version Date	Version Number	Binary MD5 Sum & SHA#1 Hash
Mt19937.go	04/12/2019	2.0	1f4e940a3440e1c30e7a60d7b8ff074e e9439549da6c39e228dc6573544b7b827e619261

SECTION 5. REVIEW FINDINGS

The key findings of our review of the game for compliance with the relevant sections of the RTOS are as follows:

Technical and Operating Standards	Assessment	Comments
7.1 Game Fairness		
(1) Licence holders should make information available to customers on their website(s) about their testing and quality assurance arrangements in place to assure fairness and randomness in their gaming products, including information about testing/certification by an ATF where applicable and where this can be accessed.	Not applicable	The scope of assessment is limited to aspects directly managed by the supplier
(2) Licence holders should ensure appropriate systems and resources are deployed to prevent or detect attempts to cheat by customers or other parties. Such measures should be applied on a risk sensitive basis, with analytic programs (e.g. algorithms, exception reports, cluster analysis) deployed to identify long term or systemic cheating as well as short/medium term sporadic efforts.	Not applicable	The scope of assessment is limited to aspects directly managed by the supplier
(3) Games should be implemented and operate fairly and strictly in accordance with the published rules and prevailing RTP where applicable.	Compliant	
(4) Games designed to give the customer only the perception that speed or skill influences the outcome of a game (e.g. "steering" or "aiming") should make this apparent in the game description.	Not applicable	No indication was given that the game results could be influenced by player speed or skill.
(5) A licence holder should not implement game designs or features that may reasonably be expected to mislead the customer about the likelihood of particular results occurring. This includes, but is not limited to the following:		
(a) Where a game simulates a physical device the theoretical probabilities and visual representation of the device should correspond to the features and actions of the physical device (e.g. roulette wheel).	Not applicable	Physical devices are not simulated in the game.
(b) Where multiple physical devices are simulated the probabilities of each outcome should be independent of the other simulated devices (e.g. dice games).	Not applicable	Physical devices are not simulated in the game.
(c) Where the game simulates physical devices that have no memory of previous events, the behaviour of the simulations should reflect the behaviour of the physical devices (e.g. roulette wheel, cards, dice games).	Not applicable	Physical devices are not simulated in the game.

Technical and Operating Standards	Assessment	Comments
(d) Games should not falsely display near-miss results, that is, the event may not substitute one random losing outcome with a different losing outcome.	Compliant	
(e) Where the event requires a pre-determined layout (for example, hidden prizes on a map), the locations of the winning spots should not change during play, except as provided for in the rules of the game.	Not applicable	Pre-determined layouts are not required.
(f) Where games involve an element of skill, every outcome described in the virtual event rules or artwork should be possible, that is, the customer should have some chance of achieving an advertised outcome regardless of skill.	Not applicable	Not a game of skill.
(g) Where a customer contributes to a jackpot pool, that customer should be eligible to win the jackpot whilst they are playing that game, in accordance with the game and jackpot rules.	Not applicable	Game does not comprise a jackpot.
(6) If a cap is established on any jackpot, all additional contributions once that cap is reached should be credited to the next jackpot.	Not applicable	Game does not comprise a jackpot.
(7) If the artwork contains game instructions specifying a maximum win, then it should be possible to win this amount from a single game (including features or other game options).	Compliant	
(8) Casino games should operate at a speed that allows the player to establish the result of each cycle of the game. Players may be permitted to accelerate the speed of a game where they are still able to establish the result of each cycle.	Compliant	The scope of assessment is limited to aspects directly managed by the supplier
7.2 'Play for Free' Games		
(1) Play for free games for no prize are not gambling but should accurately reflect any 'real-money' version of the game, and should not be used to encourage those under 18 to use licensed gambling facilities.	Compliant	The scope of assessment is limited to aspects directly managed by the supplier
(2) In particular, such games should not be designed to mislead the player about the chances for success by, for example, using mappings that produce different outcomes than the cash game. Licence holders should be able to demonstrate this equivalence to the Gambling Commissioner upon request.	Compliant	The scope of assessment is limited to aspects directly managed by the supplier
(3) Play for Free games for a prize, (ie games providing the opportunity to win a prize of money or monetary worth) do amount to gambling.	Not applicable	The scope of assessment is limited to aspects directly managed by the supplier
(4) Pay to Play games for no prize, sometimes referred to as 'social gaming', do not amount to gambling whilst the object or outcome of the game play does not amount to a prize.	Not applicable	The game is not a 'Social Gaming' offering.

Technical and Operating Standards	Assessment	Comments
Where such games reflect any 'real money' games they should not be used to encourage those under 18 to use licensed gambling facilities and should perform consistently with 'real money' games.		
7.3 Compensated or adaptive games		
(1) Games should not be "adaptive" or "compensated", that is, the probability of any particular outcome occurring should be the same every time the game is played, except as provided for in the (fair) rules of the game.	Compliant	The game does not include any adaptive or compensative features.
7.4 No Forced Game Play		
(1) The customer should not be forced to play a game simply by selecting it.	Compliant	
(2) A mechanism should be implemented to prevent repeated gamble instructions, (for example, where a customer repeatedly presses "play" while waiting for a game result) to be executed.	Compliant	The scope of assessment is limited to aspects directly managed by the supplier
7.5 Auto-play		
(1) The customer should retain control of the gambling where auto-play functionality is provided. The auto-play functionality should:		
(a) Enable the customer to choose the stake and either the number of auto-play gambles or the total amount to be gambled.	Compliant	
(b) Enable the customer to stop the auto-play regardless of how many auto-play gambles they initially chose or how many remain.	Compliant	
(c) Not override any of the display requirements (e.g. the result of each gamble should be displayed for a reasonable length of time before the next play.)	Compliant	
7.6 Game Control		
(1) It should be possible for the licence holder to disable any game or game session.	Not applicable	The scope of assessment is limited to aspects directly managed by the supplier
(2) The licence holder should be able to provide full audit trails when disabling a game that is currently in play.	Not applicable	The scope of assessment is limited to aspects directly managed by the supplier
7.7 Incomplete Games		
(1) Where possible, licence holders should provide a mechanism in single player games for an incomplete game to be completed before a customer is able to participate in any other game. Incomplete games may occur as a result of:	Compliant	

Technical and Operating Standards	Assessment	Comments
(a) Loss of communications between the licence holder and end customer device,	Compliant	The scope of assessment is limited to aspects directly managed by the supplier
(b) Licence holder restart,	Not applicable	The scope of assessment is limited to aspects directly managed by the supplier
(c) Game disabled by licence holder,	Not applicable	The scope of assessment is limited to aspects directly managed by the supplier
(d) End customer device restart, and	Compliant	The scope of assessment is limited to aspects directly managed by the supplier
(e) Abnormal termination of gambling application on end customer device.	Compliant	The scope of assessment is limited to aspects directly managed by the supplier
(2) Gambles associated with a partially complete game that can be continued should be held by the licence holder and be apparent to the customer.	Not applicable	Game does not comprise any gamble features.
(3) The licence holder should ensure customer fairness, to the extent possible, in the event of a communication loss to one or more end customer devices during a multi-customer game.	Not applicable	Game does not comprise any gamble features.
7.8 Game / Website Design		
(1) The functions of all buttons represented on the website and games should be clearly indicated.	Compliant	
(2) Edges of the "hot" area of buttons should be clearly defined in the artwork to prevent clicking near buttons creating a gamble.	Compliant	
7.9 Poker / P2P Games		
(1) In respect of P2P games, in particular poker, licence holders should ensure appropriate collusion pattern analysis and reporting is in place to identify any biases or patterns that indicate collusion, and be able to provide an appropriate level of investigation/intervention. As a minimum the analysis should:	Not applicable	Does not apply to this product offering
(a) Aim to identify those individual players with unusually high/low levels of success, and be satisfied that these outcomes are consistent with fair and predictable playing patterns and do not arise through extraneous or irregular events or actions.	Not applicable	Does not apply to this product offering
(b) Be able to identify players who routinely make decisions contrary to the mathematically-optimal	Not applicable	Does not apply to this product offering

Technical and Operating Standards	Assessment	Comments
course of action, and yet persist to have success levels greater than expected.		
(c) Review player table placement and aim to identify players who tend to collude or operate inappropriately in team groupings.	Not applicable	Does not apply to this product offering
(d) Be aware of existing and developing trends in player collusion methods and tactics.	Not applicable	Does not apply to this product offering
(5) Under their terms and conditions, poker rooms should make explicit that collusion of any form between players will not be tolerated and may lead to the suspension of funds pending investigation.	Not applicable	Does not apply to this product offering
(6) Operators should not permit the use of robots by customers, and should have procedures in place to monitor the rooms for robots and, where detected, stop their play and conduct a review of the account.	Not applicable	Does not apply to this product offering
7.10. Sports betting and integrity		
(1) Sports betting licence holders should have procedures for identifying suspicious betting transactions and patterns which might identify a threat to the sport's integrity or any form of cheating. Where a threat is identified there should be a procedure for notifying the relevant sporting body in line with applicable data protection requirements, and for informing the Gambling Commissioner.	Not applicable	Does not apply to this product offering
(2) Licence holders should give active consideration to joining properly structured and organized information sharing/alert mechanisms for managing suspicious bets or accounts.	Not applicable	Does not apply to this product offering
(3) Effective risk control mechanisms should be in place for managing events offered, bet sizes and prices, taking into consideration available cash and cash equivalents.	Not applicable	Does not apply to this product offering
(4) The terms and conditions for sports betting (and other betting events) should be 'fit for purpose' in terms of the products offered and the safeguards need to deter or disrupt corrupt betting, breaches of the rules of any sport or competition attracting bets, or any other attempt to cheat, commit fraud, breach terms and conditions or otherwise operate an account in a way that may undermine the integrity of the affected event or the betting on that event.	Not applicable	Does not apply to this product offering
11.1 RNG and Game Randomness		
(1) Licence holders should be able to demonstrate the fairness and randomness of all games to the Gambling Commissioner without any undue delay.	Compliant	Refer to report 92507MTLMJ001

Technical and Operating Standards	Assessment	Comments
(2) The output obtained through the use of the RNG shall be proven to:	Compliant	Refer to report 92507MTLMJ001
(a) Be statistically independent.		
(b) Be uniformly distributed over their range.		
(c) Pass various recognised statistical tests intended to demonstrate a) and b) above and the absence of patterns.		
(d) Be unpredictable without knowledge of the algorithm, its implementation, and the current seed value (all of which should be secure).		
(e) Be random and distributed in accordance with the rules and expected probabilities of the game.		
11.2 Mechanical RNGs		
(1) For games that use the laws of physics to generate game outcomes ("mechanical RNGs") the mechanical RNG should also meet the following guidelines:	Not applicable	Game does not use physical devices.
(a) Components should be constructed of materials that will not degrade before their scheduled replacement lifecycle.		
(b) The properties of the items used should not be altered.		
(c) Customers should not have the ability to interact with, come into physical contact with, or manipulate the mechanics of the game.		
11.3 RNG Failure		
(1) Systems should be in place to quickly identify any failure of the RNG (for example, if a short sequence is repeated, or if the output is a constant flow of the same value).	Compliant	Refer to report 92507MTLMJ001
(2) In the event of an RNG failure, games that rely upon that RNG should be made unavailable for gambling until the failure is rectified or the RNG replaced.	Compliant	Refer to report 92507MTLMJ001
12.2 (1) RNG Testing		
Prior to the commercial use of a new RNG in the provision of remote gambling facilities, a licence holder shall furnish the Commissioner with a certificate from an ATF confirming that the output of the RNG passes recognised statistical randomness tests confirming that it meets the randomness requirements in section 11.1(2).	Compliant	Refer to report 92507MTLMJ001
12.3 (1) Game Engine Testing		
Prior to the commercial use of a new game engine in the provision of remote gambling facilities, a licence holder shall furnish the Commissioner with a certificate from an ATF	Compliant	

Technical and Operating Standards	Assessment	Comments
confirming that the game engine's output (after scaling and mapping) conforms to the randomness requirements in section 11.1(2).		