

November 25, 2008

Everest Gaming Limited

**RE: TST Fourth Pass Evaluation of the EGL / Grand Virtual RNG and Shuffler**

This Certification Letter pertains to Technical Systems Testing (TST)'s Fourth Pass Evaluation of the Everest Gaming Limited (EGL) Random Number Generator (RNG) and Shuffler, which operate on the 'Powered by Grand Virtual' platform for operation within the jurisdiction of Malta, as regulated by the Lotteries and Gaming Authority (LGA).

TST's Fourth Pass Evaluation of the EGL RNG and Shuffler was performed with the aim of identifying and detailing system weaknesses and possible issues of non-compliance with any applicable requirements from the following specifications and standards:

1. EGL's technical specifications for their RNG and Shuffler,
2. Generally-accepted industry standards for highly-regulated jurisdictions, and
3. The Technical Standards Document (TSD) for the jurisdiction of Malta, the **Remote Gaming Regulations, 2004**, Third Schedule – Technical requirement for gaming system, which states the following RNG requirements:

3. The gaming system must satisfy the following criteria for randomness, following Schneier:-
    - (a) the data must be randomly generated, passing appropriate statistical tests of randomness;
    - (b) the data must be unpredictable, i.e. it must be computationally infeasible to predict what the next number will be, given complete knowledge of the algorithm or hardware generating the sequence, and all previously generated numbers;
    - (c) the series cannot be reliably reproduced, i.e. if the sequence generator is activated again with the same input (as exactly as is reasonably possible) it will produce two completely unrelated random sequences.

In order to satisfy the applicable requirements, TST's Fourth Pass Evaluation of the EGL RNG and Shuffler included (but was not necessarily limited to) the following elements:

- Software Version Control,
  - Supervised Build, and
  - Gathering of Message Digest 5 (MD5) Checksums.
- RNG Evaluation
  - Submitted Documentation Review (Check for Changes),
  - Source Code Comparison (Check for Changes), and
  - RNG Testing (Test Changes).

TST completed the Fourth Pass Evaluation of the EGL RNG and Shuffler on November 07, 2008, with no Compliance Reports (CRs) issued.

For version control, TST gathered Message Digest 5 (MD5) checksums for the following important RNG files as shown in the table below:

File Name	MD5 Checksum	Effective Date
CRandom.o	61869e5f9ac5b9960c5487a59ff185fa	November 04, 2008
CServerRandom.o	fa46759da4de3960227ef06ae480f635	November 04, 2008
CServerRandom.d	87b9630140b35461eb2d7863c573b669	November 04, 2008
CRandom.d	06f8ef04771de6e812cc579d835426a9	November 04, 2008
CRandom.cc	853434bb1c04544328b4d438d39be0c1	November 04, 2008
CRandom.h	2224984d5f767982d0df239e4e7f758a	November 04, 2008
CServerRandom.cc	4bf00112033e41fa4cb8b67387535c78	November 04, 2008
CServerRandom.h	0f0789a99ff4ad1badd1c631e6e4b9d7	November 04, 2008

TST has verified, through mathematical and statistical analysis, that the EGL RNG distributes numbers with sufficient non-predictably, fair distribution and lack of bias to particular outcomes. TST's Final Outcome Distribution Tests were performed using a confidence interval between 95% and 98%, which are documented intervals of confidence for such statistical analysis. The evaluation has shown that the EGL RNG produces a statistically acceptable source of random numbers for use with the Multi-Player Poker Shuffler.

TST's evaluation was based on a particular version of the EGL RNG and Shuffler. TST's evaluation was therefore based on specific information and materials (including, but not necessarily limited to, documentation, general correspondence, source code and software), as submitted to TST throughout the duration of the evaluation. For verification purposes, TST has maintained a control version of all information and materials as listed above.

Assuring you of our best attention at all times.

Yours sincerely,



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**TST TECHNICAL SYSTEMS TESTING (TST)**