

3.2 Application Message Handling

Due to the limit of space, only metering and handpay scenario are describe in the paper. For Metering, over a hundred of meter codes are defined for accounting and gaming performance analysis (per-machine meters or per-game meters). The game ID 0 is used for reading the machine level meters and should be summed up for all corresponding per-game meters.

Handpay condition occurs when the win level or credit cancel amount is too high by jurisdiction. Main game software initiates the handpay transaction. The SAS engine should send 0x51 exception to the host. Typical resolution method is paid in a check by an attendant (0x3E exception) or ticket-out after validation of an attendant (0x3D exception). The host (SMIB) will query the handpay info by the 'Send Handpay Info' LP (0x1B), which is usually responded by Pending status response. When the handpay reset is done by an attendant, the SAS engine should sends the 'Handpay Reset' exception (0x52). Finally the host query with 'Send Enhanced Validation' LP (0x4D) and gets result information of the handpay. The engine should update the information in the persistent storage. The persistent storage management is the role of game part.

4 Evaluation and Conclusion

The engine's functional and performance verification is done with IGT EGM test tool and our SMIB implementation, except bonus, progressive, RTE, and multi-denom features (due to the limit of understanding of service scenarios). The performance is tested sending upto 40 ms, and the CPU utilization is less than 5 % in the typical slot machine hardware environments. We are developing SAS to G2S protocol [4, 5] converter so that existing EGMs can be used together with new standard based host systems in the transition periods, which is expected at least 10 to 15 years, considering the normal lifetime of EGMs in the field.

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