



**TECHNICAL STANDARDS**  
**FOR**  
**THIRD PARTY ADD-ON GAMES**  
**AND GAME SYSTEM**  
**(SINGAPORE)**

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## **Preface**

The purpose of this document is to establish the requirements for the design and operation of Third Party Add-on Games and Third Party Add-on Game System within the jurisdiction of Singapore, and to guide testing and certification bodies on the areas for technical compliance for such gaming products.

The intent of this document is to ensure that gaming associated with Third Party Add-on Games is conducted in a manner that is:-

- a. Honest;
- b. Secure;
- c. Reliable; and
- d. Auditable.

It is not the intent of this document to:-

- a. Mandate a single solution or method to realise an objective;
- b. Limit technology application to gaming equipment;
- c. Limit creativity and variety of choice;
- d. Preclude research and development into new technologies equipment or innovative ideas.

As far as possible, this document specifies what the minimum technical requirements for Third Party Add-on Games and Game System are, instead of how the requirements should be met; nor try to mandate a particular solution or method as the means to realise the requirements.

The Casino Regulatory Authority of Singapore (the “Authority”) is the regulatory authority that supervises and regulates the activities of casinos in Singapore. Casino operators are required to be licensed by law and must ensure that their gaming machines deployed on the casino floor comply with these technical standards.

These technical standards are supplementary to and are not intended to derogate from any provisions in the Casino Control Act (Cap. 33A) and its subsidiary legislations. In the event of any inconsistency, the provisions in the Casino Control Act (Cap. 33A) and its subsidiary legislations shall apply.

These technical standards are subject to on-going review, and where necessary or deemed appropriate, the Authority reserves the right to unilaterally amend or re-issue this document without notice.

Comments on this document can be forwarded to:-

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## **1. INTRODUCTION**

### **1.1 Purpose**

1.1.1 The purpose of this document is to:-

- a. Create a set of technical standards that would ensure that the offering of Third Party Add-on Games in casinos under Singapore's jurisdiction are secure, reliable, auditable and operated correctly;
- b. Eliminate subjective criteria in evaluating and certifying Third Party Add-on Games and Third Party Add-on Game System.
- c. Construct a set of technical standards that is technology neutral wherever feasible; and
- d. Construct a set of technical standards that does not specify or approve any particular method or algorithm. The intent being to allow a wide range of methods to be used to conform to the standards as long as the methods are secure, reliable and consistent with the technology best practices of the day.

### **1.2 Scope**

1.2.1 The scope of this set of technical standards covers the minimum standards and security safeguards required in the offering of Third Party Add-on Games and the operation of the Third Party Add-on Game System, so that security, reliability and integrity of gaming is achieved.

1.2.2 This set of technical standards does not cover requirements that are not related to gaming (such as health and safety).

1.2.3 This set of technical standards applies to Third Party Add-on Games played on gaming machines, and the associated Third Party Add-on Game System.

### **1.3 Terminology**

1.3.1 The following terminology used in this document is to be interpreted as follows:-

- a. Shall: The guideline defined is a mandatory requirement, and therefore must be complied with;
- b. Should: The guideline defined is a recommended requirement. Non-compliance shall be documented and approved by the management. Where appropriate, compensating controls shall be implemented; and
- c. May: The guideline defined is an optional requirement. The implementation of this guideline is determined by the operator's environmental requirements.

## **1.4 Definition of Terms**

Third Party Add-on Game	A Third Party Add-on Game is a game offered on a gaming machine for promotional purposes. It does not require any additional wager from the player, and is offered when there exists gaming activity on the base game, or if the gaming machine detects a player membership card-in session. Awards for the Third Party Add-on Game are generated from a pay table or schedule which falls outside of the base game, and shall not be used to satisfy the minimum RTP requirements.
Third Party Add-on Game System	A Third Party Add-on Game System utilises gaming machines that are configured to participate in electronically communicated promotional award payments from a host system. The Third Party Add-on Game System comprises the host system that controls the award issuance parameters, and all interfacing devices that are required to establish and/or maintain communication between the host system and the connected gaming machines.

## **1.5 Testing**

1.5.1 Testing of the Third Party Add-on Games and the Third Party Add-on Game System by Approved Test Service Providers (ATSPs) shall be aimed at determining compliance with the technical requirements provided in this document. Areas of non-compliance shall be reported in the test/certification report. Where, in the opinion of the ATSP, the technical requirements spelt out in this document are insufficient, inappropriate or not pertinent to the design of the subject gaming machine or equipment, the ATSP shall seek direction and further clarification from the Authority before proceeding to testing/certification.

## **1.6 Consistency of Interpretation**

1.6.1 The Casino Regulatory Authority (CRA) of Singapore recognises that the technical standards may be subject to different interpretations by gaming machine manufacturers, casino operators and ATSPs. As such, any feedback where different interpretations may be applied to the technical standards provided in this document should be directed to the CRA for clarification when it arises.

## **2. THIRD PARTY ADD-ON GAME**

A Third Party Add-on Game is a game offered on a gaming machine for promotional purposes. It does not require any additional wager from the player, and is offered when there exists gaming activity on the base game, or if the gaming machine detects a player membership card-in session. Awards for the Third Party Add-on Game are generated from a pay table or schedule which falls outside of the base game, and shall not be used to satisfy the minimum RTP requirements. This section describes the requirements on a Third Party Add-on Game.

### **2.1 Game Design**

- 2.1.1 All game instructions and artwork displayed by a Third Party Add-on Game shall be accurate and sufficient in explaining how the game is being played, and shall be easily interpreted, unambiguous, and non-misleading.
- 2.1.2 A Third Party Add-on Game which require player interaction shall wait indefinitely for the player's action.
- 2.1.3 If a Third Party Add-on Game allows the player to make selections which have no impact on the game outcome, the game instructions and artwork shall clearly state that the player's selections have no influence on the outcome of the game.
- 2.1.4 All artwork for Third Party Add-on Games shall not be in any form or manner, indecent or offensive.
- 2.1.5 Third Party Add-on Games shall not display the player's progress to attaining the next tier(s) of awards.

### **2.2 During a Win**

- 2.2.1 When a Third Party Add-on Game award has been won, the winning gaming machine shall accurately display the winning award to the player.
- 2.2.2 When the winning award from the Third Party Add-on Game cannot be successfully paid to the player, an error message shall be displayed and the error shall be logged on the Third Party Add-on Game System.
- 2.2.3 All soft meters below shall be updated to reflect the winning award from the Third Party Add-on Game, if applicable.

<b>Meter Name</b>	<b>Definition</b>
Machine Paid External Bonus Payout	The machine shall have a meter specifically labeled "Machine Paid External Bonus Payout" that accumulates the total value of additional amounts awarded as a result of an external bonusing system and paid by the gaming machine.

## Technical Standards for Third Party Add-on Games and Game System (Singapore)

<b>Meter Name</b>	<b>Definition</b>
Attendant Paid External Bonus Payout	The machine shall have a meter specifically labeled “Attendant Paid External Bonus Payout” that accumulates the total value of amounts awarded as a result of an external bonusing system paid by an attendant.
Non-Cashable Electronic Promotion In	The machine shall have a meter specifically labeled “Non-Cashable Electronic Promotion In” that accumulates the total value of non-cashable credits electronically transferred to the machine from a promotional account by means of an external connection between the machine and a cashless wagering system.
Cashable Electronic Promotion In	The machine shall have a meter specifically labeled “Cashable Electronic Promotion In” that accumulates the total value of cashable credits electronically transferred to the machine from a promotional account by means of an external connection between the machine and a cashless wagering system.
Non-Cashable Electronic Promotion Out	The machine shall have a meter specifically labeled “Non-Cashable Electronic Promotion Out” that accumulates the total value of non-cashable credits electronically transferred from the machine to a promotional account by means of an external connection between the machine and a cashless wagering system.
Cashable Electronic Promotion Out	The machine shall have a meter specifically labeled “Cashable Electronic Promotion Out” that accumulates the total value of cashable credits electronically transferred from the machine to a promotional account by means of an external connection between the machine and a cashless wagering system.

### **2.3 Operational Requirements**

- 2.3.1 Third Party Add-on Games shall not be configured to issue awards based on duration of game play (solely or in combination with other configurations).
- 2.3.2 Third Party Add-on Games shall not be configured to issue awards based on net loss of the player (solely or in combination with other configurations).



### **3. THIRD PARTY ADD-ON GAME SYSTEM**

A Third Party Add-on Game System utilises gaming machines that are configured to participate in electronically communicated promotional award payments from a host system. The Third Party Add-on Game System comprises the host system that controls the award issuance parameters, and all interfacing devices that are required to establish and/or maintain communication between the host system and the connected gaming machines. This section describes the requirements on the Third Party Add-on Game System so that it would operate in an honest, secure, auditable and reliable manner.

#### **3.1 Physical Security**

3.1.1 The host system shall be physically secured to prevent unauthorised access.

#### **3.2 Software Integrity**

3.2.1 A method of hashing or check summing the system application executable files shall be made available to verify the system baseline.

3.2.2 The integrity of the host system software shall be maintained during live use.

#### **3.3 Access Control**

3.3.1 Role based access control shall be supported to allow users to only access programs and menu items related to their job functions.

#### **3.4 Logging**

3.4.1 The host system shall log minimally the following events (including date and time for each event):-

- a. Details of awards issued, including prize information, gaming machine ID and player membership ID (if applicable);
- b. All modifications to any configuration, including award issuance parameters, and the identity of the user/s performing the action;
- c. Communication failure; and
- d. Any critical system events or errors.

3.4.2 The host system shall allow online viewing of all events logged.

#### **3.5 Error Conditions**

3.5.1 When an error occurs on the Third Party Add-on Game System, the system shall alert the casino operator to the error condition.

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- 3.5.2 When an error which affects the eligibility of players to participate in a Third Party Add-on Game occurs, it shall be made known to all players affected by the error.
- 3.5.3 When an error which disrupts a Third Party Add-on Game that is in play occurs, it shall be apparent to all players affected by the error.
- 3.5.4 When an error occurs on the Third Party Add-on Game, the base game on the gaming machine may continue to be operational.

### **3.6 Progressive Awards**

- 3.6.1 If the Third Party Add-on Game utilises progressive pools to fund the awards, and the current pool levels' amounts are advertised to the player, all requirements stipulated in the Technical Standards for Progressives shall be applicable to the Third Party Add-on Game System.
- 3.6.2 If the Third Party Add-on Game utilises progressive pools to fund the awards, but does not advertise the current pool amounts to the player, the relevant requirements stipulated in Section 3.2, 3.3, 3.4, 3.7 and 4.2.5 of the Technical Standards for Progressives shall be applicable.

### **3.7 Applicability of Other Technical Standards**

- 3.7.1 Any RNG used shall meet the requirements stipulated in Section 3.4 of the Technical Standards for Electronic Gaming Machines.
- 3.7.2 If the Third Party Add-on Game participation requires player membership card-in or communicates with the player account, the relevant requirements stipulated in Section 4.1 of the Technical Standards for Cashless Wagering System shall be applicable.