GLI-LGS
LIVE GAMING STUDIO
GUIDE

FOR LIVE GAMING OPERATIONS

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1. INTRODUCTION

1.1. Purpose and Scope

The goal of this document is to set forth procedures and practices for the industry with regard to implementation and assessment of a Live Gaming Studio (LGS Assessment), where wagers are placed through a Live Gaming Platform on live games conducted by a gaming attendant (dealer, croupier, host, etc.) and/or other Live Gaming Equipment in a Live Gaming Studio. This includes, but is not limited to live drawings, live card games, live table games, live keno games, live bingo games, live gameshow games, and live or remote play of Gaming Devices or other games as allowed by the regulatory body.

Guidance provided by this document is meant to clarify the following for Live Gaming Operations, their suppliers and vendors, and Independent Test Laboratories:

a. Minimum regulatory framework for live games based on existing technology and industry best practices to safeguard the interest of the player and ensure gaming integrity;
b. Guidelines for conducting LGS Assessments to determine adherence to applicable in-scope laws, regulations, and industry standards; and
c. Minimum uniform procedures, format, and archival requirements for all information to be captured by a Live Gaming Operation.

1.2. Standards Consulted

GLI acknowledges and thanks the regulatory bodies and other industry participants who have assembled rules, regulations, technical standards, and other documents which have been influential in the development of this document.

1.3. Necessity

An LGS Assessment is necessary to ensure the integrity, fairness, and regulatory compliance of live gaming operations by verifying that all live gaming products, live games, and operational procedures function as intended and are resistant to manipulation, error, or unauthorized influence. Such assessments provide independent assurance that live games and outcomes are properly generated, transmitted, and displayed in accordance with approved rules, that surveillance and control measures are effective, and that all components of the Live Gaming Studio, including gaming attendants, cameras, streaming infrastructure, and supporting systems, operate within established technical and procedural standards. This is critical to maintaining player trust, safeguarding Live Gaming Operation accountability, and meeting jurisdictional requirements for transparency, security, and responsible gaming.

2. ASSESSMENT

2.1. Initial LGS Assessment

Unless the regulatory body has advised otherwise, within ninety days of commencing live gaming operations within a jurisdiction, the Live Gaming Studio shall be fully evaluated against the controls of this document, as well as the rules and regulations of the regulatory body and accompanied by a formal evaluation report from an Independent Test Laboratory or other entity authorized by the regulatory body. Any requested postponement of the LGS Assessment, along with an updated schedule, shall be authorized by the regulatory body.

NOTE: It is recommended for the regulatory body to allow flexibility for LGS Assessment schedules for multi-jurisdictional studios to allow consolidation of audits for multiple jurisdictions to a common schedule.

2.2. Annual LGS Assessment

At least once annually, unless otherwise specified by the regulatory body, the Live Gaming Studio shall be fully evaluated against the controls of this document, as well as the rules and regulations of the regulatory body and accompanied by a formal evaluation report from an Independent Test Laboratory or other entity authorized by the regulatory body. Approval for extension beyond the annual evaluation may be sought if hardship can be demonstrated. Granting a hardship waiver is the sole discretion of the regulatory body.

NOTE: It is recommended for the regulatory body to allow flexibility for LGS Assessment schedules for multi-jurisdictional studios to allow consolidation of audits for multiple jurisdictions to a common schedule.

2.3. Integrity and Security Assessment

Unless otherwise specified by the regulatory body, an annual Integrity and Security Assessment shall be conducted against the applicable controls and tests identified in the GLI Gaming Security Framework (GLI-GSF) and any other controls and tests identified by the regulatory body to complement the LGS Assessments designated in sections 2.1 and 2.2. The Integrity and Security Assessment shall include a Gaming Information Security (GIS) Controls Audit and a Gaming Technical Security (GTS) Assessment applicable to the Critical Components of the Live Gaming Studio's Gaming Production Environment.

NOTE: It is recommended for the regulatory body to allow flexibility for Integrity and Security Assessment schedules for multi-jurisdictional studios to allow consolidation of audits for multiple jurisdictions to a common schedule. Please refer to the *GLI Gaming Security Framework (GLI-GSF)* for additional information.

3. CERTIFICATION

3.1. Components Certification

All live gaming components that require certification by the regulatory body, such as Live Gaming Platforms, Remote Player Interfaces, and Live Gaming Equipment shall be certified against the applicable GLI Standards and/or the regulatory body's applicable technical requirements. Live Gaming Equipment includes, but is not limited to, Studio Control Servers, Physical Randomness Devices, Specialized Devices, Live Game Management Components, Gaming Devices used for live or remote play, and any other technological aids to the play of live games which directly impacts live gaming activity and game outcome data. Unless otherwise directed by the regulatory body:

a. For unaltered commercial off-the-shelf (COTS) components (e.g., scanners, cameras, audio/video equipment, computers, servers, monitors, communications equipment, and related components), certification is not required; and
b. For modified off-the-shelf (MOTS) components, certification is required only to the modifications made to the components.

NOTE: The applicable technical requirements are to be determined based on how the remote player is participating in the live game. For example, if the remote player is accessing the live game through an Interactive Gaming System, the GLI-19 Standards for Interactive Gaming Systems, and/or the regulatory body's technical requirements for Interactive Gaming would apply. The applicable technical requirements are also to be determined based on the type of Live Gaming Equipment, and how they are used in the live game. For instance, a shuffler would need to be certified against the GLI-29 Standards for Card Shufflers and Dealer Shoes and/or the regulatory body's technical requirements for shufflers. Regarding Gaming Devices used for live or remote play through an Interactive Gaming System, the regulatory body may require games and RNGs be certified against the GLI-19 Standards for Interactive Gaming Systems, as opposed to the GLI-11 Standards for Gaming Devices, and/or the regulatory body's applicable technical requirements.

3.2. Live Game Certification

All live games for proposed use shall meet or exceed the regulatory body's applicable rules and regulations and/or adopted GLI Standards specified by the regulatory body. All documentation and other materials necessary to conduct testing and evaluate compliance of the live game shall be submitted to an Independent Test Laboratory so the live game can be certified, including where applicable:

a. A summary of the live game, including the objectives of the live game, the method of play, and the wagers offered;
b. A draft of the proposed rules of the live game including a description of the Live Gaming Equipment and consumables used to play the live game and specific examples and dealing procedures;
c. Specific procedures to remedy all misdeals and malfunctions of any Live Gaming Equipment utilized;
d. The true odds, the payout odds, and the house advantage for each type of available wager;
e. Sample(s) of new or modified Live Gaming Equipment or consumables associated with the live game;
f. A sketch or picture of the live game layout, if any; and
g. Sketches or pictures of the Live Gaming Equipment used to play the live game.

4. CONTROLS

4.1. Live Game Functionality and Features

4.1.1. Remote Player Information and Transparency

The live game is viewed by all remote players through a real-time remote audio/video feed using streaming, narrowcast, broadcast, or other technology and a graphical interface. The Live Gaming Operation shall ensure that remote players are provided with:

a. Rules of acceptance/rejection of wagers, including instances where only part of the wager is accepted;
b. An equivalent-quality audio/video feed. Equivalence shall be measured and verified whenever communications are initiated or upon reconnection following a signal interruption or re-initiation after the signal was severed;
c. Disclosures regarding any minimum signal connection requirements necessary to maintain the required audio/video feed quality, as established and enforced by the Live Gaming Operation;
d. Real-time audio/video access to the live game being played, including:
    i. Any gaming information typically required to be displayed for games as specified in the regulatory body's technical standards and not displayed by the Remote Player Interface itself;
    ii. The actions of the gaming attendant and, where applicable, other players;
    iii. The date and time at the Live Gaming Studio, including the applicable time zone;
    iv. The table/game identification and location;
e. An indication of the possibility of human error by the gaming attendant or system error by the Live Gaming Equipment, and how such errors are resolved; and
f. Information concerning any correlation between the remote player's wagers or selections through the Live Gaming Platform and what is displayed in the audio/video feed, including any corresponding physical chips or tokens and their values.

4.1.2. Live Transmission Delays and Interruptions

The Live Gaming Operation shall inform each remote player of any live transmissions or any live games relying on "live" monitoring of an event (e.g., bingo) that live transmissions may be subject to delay or interruption.

a. Where a delay is apparent, the Live Gaming Operation shall disclose the scale of the delay to the remote player. The disclosure may be given verbally by the gaming attendant, where this is set out in the appropriate policies and procedures.
b. Procedures shall be in place to address interruptions affecting remote players or live game video, audio, or data streams, including internet connection outages and server malfunctions. Remote players shall be provided with rules describing the applicable interruption procedures.
c. Where a live game cannot be continued due to a system failure or other system action, procedures shall require the Live Gaming Operation to:
    i. Return all applicable wagers to the affected remote players;
    ii. Update the live game logs and remote player's funds available for wagering accordingly;
    iii. Inform the regulatory body of the circumstances of the incident, as required; and
    iv. Disable the affected live game where it is likely to be affected by the same failure.

4.1.3. Prohibition on Real-Time Player Assistance and Unfair Advantage

The Live Gaming Operation shall reasonably prevent remote players from receiving or using real-time information, unauthorized player assistance, or other technological aids that provide an unfair advantage during a live game, including tools used to:

a. Project or predict the outcome of the game;
b. For card games, track cards played or remaining to be played;
c. Analyze the probability of an event relating to the game; or
d. Analyze the strategy for playing or wagering in the game, unless such information is allowed by the rules of the live game.

4.1.4. Remote Player Instruction Handling

The live game receives instructions from each remote player through the Remote Player Interface or another communication channel to facilitate player decisions where required. Procedures shall be in place to ensure that:

a. The rules of the live game are programmed into the Live Gaming Platform;
b. All legitimate wagers are accepted by the game as defined by rules for that game;
c. When wagers are placed by verbal instruction, the content of the wager is communicated back and acknowledged by the remote player before the wager is confirmed;
d. The player is clearly informed whether each wager has been accepted, rejected, or partially accepted, including the amount accepted where applicable, with each wager individually acknowledged when multiple wagers are placed at once;
e. Gaming attendant and wager-related messages (e.g., “Place your bets”, “No more bets”, etc.) are clearly and unambiguously worded, displayed to the player in a timely and conspicuous manner, and remain visible for a sufficient period to provide the player a reasonable opportunity to read them;
f. If audio messages are used in addition to displayed messages, both the audio and displayed messages are reasonably synchronized (e.g., using similar text and speech);
g. After the completion of the game:
    i. The remote player is notified of their outcome, including the amount won; and
    ii. The remote player’s available funds are updated either immediately or once they exit the game.

4.1.5. Surrogate Players

Where authorized by a regulatory body, a Live Gaming Operation may utilize a surrogate player to place wagers on behalf of a remote player instead of directly through a Remote Player Interface. The Live Gaming Operation shall establish procedures for the use of surrogate players, including, at a minimum:

a. Recording each remote player's assignment of a surrogate player, including repeated rejections of randomly-assigned surrogate players and requests for reassignment to obtain a preferred surrogate player.
b. Where applicable to the live game, ensuring that the remote player can privately view their cards or other game-related items without revealing them to other players. This may be achieved through the appropriate positioning of “hole-card” or “pocket-card” video equipment.
c. Where physical chips or tokens are used by the surrogate player, ensuring that the surrogate player:
    i. “Withdraws” funds from the remote player's account to purchase physical chips or tokens on their behalf, when requested by the remote player;
    ii. Declares the value of the remote player's physical chips or tokens upon initially being assigned to the remote player and whenever requested by the remote player, including before ending the gaming session or following an interruption;
    iii. Maintains and safeguards the remote player's physical chips or tokens throughout the gaming session, including during interruptions, until they are cashed out; and
    iv. Cashes out physical chips or tokens and “deposits” the corresponding funds into the remote player's account when requested by the remote player, at the end of the gaming session, or when an interruption exceeds a documented period consistent with applicable regulatory requirements.

NOTE: The use of surrogate players will be reviewed by the independent test laboratory and approved by the regulatory body on a case-by-case basis.

4.1.6. Commingling of Remote Players with On-Premises Players

When remote players participate in live games with on-premises players at a physical Gaming Venue (e.g., casino, bingo hall, card room), the Live Gaming Operation shall ensure that:

a. Procedures are established for accounting for, reconciling, and recording revenue;
b. On-premises players are informed that they are being filmed as part of a live audio/video feed;
c. A player is unable to participate in the same game as both an on-premises player and a remote player;

d. The rules, artwork, and functionality of the live game made available to remote players, where applicable:
    i. Provide no more or less information than that made available to on-premises players; and
    ii. Do not result in any advantage or disadvantage with respect to the rules of the live game, paytable, or eligibility to win, as compared with on-premises players.

NOTE: This does not preclude bonusing or promotional awards that are available only to on-premises players or only to remote players.

4.1.7. Sponsored Players

Where authorized by the regulatory body and sponsored players participate in P2P live gaming or spectator wagering, the Live Gaming Operation shall implement controls to ensure their participation does not disadvantage other players or compromise the integrity of the live game.

a. Procedures shall mitigate conflicts between the sponsored player's assigned role and any personal gameplay, including those arising from access to the Live Gaming Studio, Live Gaming Equipment, or systems, and shall prevent access to non-public information that could provide an advantage;
b. Where the sponsored player's participation is funded by the Live Gaming Operation, such funds shall not be withdrawable by the sponsored player and shall remain restricted to authorized gameplay; and
c. The Live Gaming Operation shall not profit from the sponsored player's participation beyond any applicable rake, commission, or fee.

4.1.8. Physical Chips or Tokens

The following controls apply to physical chips or tokens used in live games. For example, in a live poker game involving both on-premises players and remote players, physical chips or tokens may be placed on the table to indicate the player's wager to the other players. The Live Gaming Operation shall ensure that:

a. All chips or tokens have identical physical characteristics except for specific differences in denomination.
b. The chips or tokens of all possible denominations are made available to the player, whether displayed simultaneously or through a selection mechanism, based on the game denomination, so that unavailability of chips or tokens of smaller denominations will not force players to wager more than the minimum permitted wager.
c. Chips or tokens of different denominations shall be distinguishable from one another, with each denomination clearly visible and identifiable when placed in a stack of chips or tokens of various denominations.
d. A defined procedure exists for the accounting of the physical chips or tokens.

4.1.9. Tipping Procedures

Where functionality is available allowing a remote player to tip a gaming attendant during a live game or a host player during spectator wagering, the Live Gaming Operation shall employ procedures to ensure that tipping transactions are optional, player-initiated, independent of wagering functionality, properly processed, and accounted for.

a. Tipping procedures shall adequately mitigate the risk of collusion between players and the gaming attendant, including controls over the collection, counting, and distribution of all tips received.
b. The Live Gaming Operation shall ensure that tipping transactions:
    i. Do not impact the pace of game play or introduce delays in wager resolution;
    ii. Do not affect the outcome of any game or the integrity of the RNG or Live Gaming Equipment used in the live game; and
    iii. Are clearly distinguishable to the remote player and recorded separately from wagers.
c. Prior to finalizing a tipping transaction, the Live Gaming Operation shall present the remote player with a confirmation screen.
d. The Live Gaming Operation shall ensure that:
    i. Amounts tipped are deducted from winnings in the live game in progress, or from the credit meter or player account balance; and
    ii. A tip is not accepted if it would result in a negative credit meter or player account balance.

4.2. Security of the Live Gaming Studio

4.2.1. Security Policies and Procedures

The Live Gaming Studio shall be defined, demarcated, and protected by security policies, procedures, and controls appropriate to the operating environment. Secure areas, Live Gaming Equipment, consumables, and areas where consumables are stored or prepared for use shall be protected to prevent unauthorized access and preserve the integrity of live games.

a. Access to areas where live games occur, Live Gaming Equipment is located, or consumables are stored or prepared for use, and any other area where live game integrity may be affected, shall be limited to authorized personnel.
b. Access permissions shall be assigned based on personnel role or category, including gaming attendants, supervisory personnel, security personnel, and other authorized personnel, as applicable.
c. Access points, including delivery areas, loading areas, and other points where unauthorized persons may enter, shall be controlled, monitored, and, where practicable, isolated from operational areas.
d. Security policies and procedures shall be reviewed at documented intervals consistent with applicable regulatory requirements to ensure risks are identified, mitigated, and addressed through contingency plans.
e. Procedures shall be in place to respond to security incidents or other security issues within the Live Gaming Studio.

4.2.2. Security Requirements Based on Operating Environment

The security controls for the Live Gaming Studio shall be appropriate to the location and operating environment in which the live games occur.

a. Where live games occur in a Gaming Venue (e.g., casino, bingo hall, card room) that is open for game play by on-premises players, the Live Gaming Studio shall be subject to the applicable security rules and controls of the Gaming Venue, including controls over the perimeter, Live Gaming Equipment, consumables, and related access points.
b. Where live games occur in a Gaming Venue during public opening hours in an area not open for game play by on-premises players, the areas where live games occur, areas near Live Gaming Equipment, areas where consumables are stored or prepared for use, and related access points shall be protected by delimitation, alert barriers, and supervision by security personnel.
c. Where live games occur in a private studio, in a Gaming Venue during public closure hours, or in an area not open for game play by on-premises players and not supervised by security personnel, the areas where live games occur, areas near Live Gaming Equipment, areas where consumables are stored or prepared for use, and related access points shall be protected by physical barriers and access security systems.

4.2.3. Regulatory Body Access

If required, the regulatory body shall be provided with continual and unrestricted access to the Live Gaming Studio, Live Gaming Equipment, and consumables for any reason the regulatory body determines necessary to regulate, license, enforce, and audit the conduct of live games. This shall include, but is not limited to, access to all live audio/video feeds required or otherwise implemented.

4.2.4. Tampering and Interference

The Live Gaming Operation shall ensure that no unauthorized individual has the ability to manipulate or influence any live game or Live Gaming Equipment, including with respect to the production of game outcome data, except as intended by game design.

4.3. Surveillance System

4.3.1. Surveillance Equipment and Control Rooms

A surveillance system capable of monitoring and recording continuous unobstructed views of all live game play and areas where consumables are stored and prepared for use shall be installed, maintained, and operated.

a. The surveillance system shall be maintained and operated from one or more secured locations, such as locked cabinets, or from staffed surveillance operation rooms.
b. Where surveillance operation rooms are used, they shall:
    i. Be secured to prevent unauthorized entry;
    ii. Limit access to surveillance personnel and other authorized individuals; and
    iii. Maintain access logs.
c. Where surveillance functions are distributed across satellite or other monitoring locations, controls shall be in place to ensure that authorized personnel can obtain priority access or otherwise assume effective control when required.
d. Each camera shall be installed in a manner that prevents it from being readily obstructed, tampered with, or disabled.

4.3.2. Active Surveillance Monitoring

Procedures shall be in place to ensure effective real-time monitoring and investigation of live gaming activity. Surveillance responsibilities may be assigned among appropriately authorized personnel or functions based on the Live Gaming Operation's operational structure.

a. The surveillance system shall provide authorized personnel with real-time access to required camera views and monitoring and display capability to support effective surveillance, detection and assessment of incidents, and investigation of live gaming activity.
b. The Live Gaming Operation shall determine the appropriate staffing, monitoring, and display arrangements based on the scale, configuration, and risk profile of the Live Gaming Studio, unless otherwise specified by the regulatory body.

4.3.3. Continuous Recording of Live Games

A continuous recording shall be made of all live games played so that:

a. The information necessary to adequately reconstruct each live game is identifiable and distinguishable, consistent with the applicable game recall requirements specified in the regulatory body's technical standards;
b. The surveillance system records an accurate date and time stamp for each live game, such that:
    i. The date and time do not significantly obstruct the recorded view;
    ii. The date and time are sufficiently synchronized with relevant systems to enable reliable reconstruction and investigation of live gaming activity;
    iii. The applicable time zone either appears in the recording or is identified in supporting documentation; and
c. The sequence of live games relative to one another can be determined.

4.3.4. Surveillance Records

The Live Gaming Operation shall maintain records:

a. Demonstrating compliance with the storage, identification, and retention requirements of this section; and
b. Documenting material surveillance activities and events, including relevant incidents, investigations, access to surveillance systems or recordings, and other activities necessary to demonstrate the effectiveness and integrity of the surveillance function.

NOTE: The Live Gaming Operation may determine the form and extent of other operational surveillance records, unless otherwise specified by the regulatory body.

4.3.5. Recording Procedures

Procedures shall be established and implemented to ensure that each recording:

a. Provides detail to verify compliance with applicable game rules and procedures and identify any discrepancies;
b. Is captured and maintained in a manner that prevents unauthorized alteration, interference, or deletion;
c. Is available for review by the operator and regulatory body in the event of a player complaint, dispute, or investigation; and
d. Is retained for a documented period consistent with applicable regulatory requirements. Recordings associated with an incident, complaint, dispute, suspected irregularity, or investigation shall be preserved until the matter is resolved and for any additional period required by the regulatory body.

4.3.6. Surveillance Training

All surveillance personnel shall be trained in the use of the surveillance equipment and live games.

4.3.7. Surveillance Reporting

Procedures shall be implemented for reporting suspected crimes and suspicious activity.

4.3.8. Inspections and Malfunctions

Procedures shall be implemented for surveillance system inspections and the handling of malfunctions to ensure that:

a. Surveillance systems are inspected at documented intervals consistent with applicable regulatory requirements;
b. Identified malfunctions and necessary repairs are documented, and repairs are initiated within documented time periods consistent with applicable regulatory requirements;
c. Where power loss or another malfunction results in the loss or material degradation of required surveillance coverage, alternative security measures are implemented immediately, or, in the event of power loss, an auxiliary or backup power source capable of immediately restoring surveillance coverage is available. Alternative measures may include redundant camera coverage, additional supervisory or security personnel, or suspension of live gaming activity in the affected area until adequate surveillance is restored; and
d. The regulatory body is notified where a malfunction results in a material loss of required surveillance capability that continues beyond a documented time period consistent with applicable regulatory requirements, including the alternative security measures being implemented.

4.4. Live Gaming Consumables

4.4.1. Consumable Specifications

Consumables used in a Live Gaming Studio shall meet minimum standards, specifications, and requirements prescribed by the regulatory body.

4.4.2. Consumable Storage and Access

Procedures shall be in place to ensure consumables are stored in secure locations. Consumables shall be subject to access controls that prevent unauthorized access.

4.4.3. Consumable Inventory and Audit Trail

Procedures shall be implemented to ensure that:

a. The inventory of consumables is tracked from receipt, through storage, installation, use, retirement, and destruction; and
b. All consumables have an associated audit trail showing which designated personnel had access to the consumables at any given time for any given operation.

4.4.4. Consumable Inspections

Procedures shall be implemented to ensure that:

a. Consumables are inspected before being placed into use and at documented intervals throughout their lifecycle, from disbursement through retirement, consistent with applicable regulatory requirements; and
b. Consumables processed by or used with Live Gaming Equipment are also inspected for defects prior to processing or use to prevent disruption of play; and
c. Records of such inspections are maintained.

4.4.5. Consumable Disposal

Used consumables shall be destroyed in a manner that prevents their accidental re-use in live games, and that puts them permanently beyond use. Consumables that are the subject of any investigation shall be retained until completion of the investigation.

4.5. Live Gaming Equipment

4.5.1. Equipment Specifications

Live Gaming Equipment used in a Live Gaming Studio shall meet minimum standards, specifications, and requirements prescribed by the regulatory body.

4.5.2. Equipment Change Management

Unless otherwise specified by the regulatory body, the Live Gaming Operation shall develop and adhere to change control processes and procedures for the use of Live Gaming Equipment that align with the expectations of the change management program recognized or required by the regulatory body, such as the GLI Change Management Program Guide (GLI-CMP).

4.5.3. Equipment Shipping and Receiving

Live Gaming Equipment shall be shipped in a secure manner to deter unauthorized access.

a. A communication procedure shall be established between the Live Gaming Equipment supplier and the Live Gaming Operation to control shipping and receiving.
b. The supplier shall notify the Live Gaming Operation of pending shipments and provide certification documentation. The shipping notification or equivalent shall include:
    i. Name and address of the supplier;
    ii. Description of the shipment;
    iii. For hardware, serial number;
    iv. For software, software version and description;
    v. Method and date of shipment; and
    vi. Expected date of delivery.
c. The Live Gaming Operation shall receive all Live Gaming Equipment and verify the contents against the shipping notification or equivalent.

4.5.4. Equipment Installation Location

The Live Gaming Studio shall contain a secure location for the placement, operation, and usage of Live Gaming Equipment.

a. Live Gaming Equipment shall be installed according to a defined plan and be sited or protected to reduce the risks from:
    i. Environmental threats and hazards;
    ii. Opportunities for unauthorized access;

iii. Power failures; and
iv. Other disruptions caused by failures in supporting utilities.

b. Records of installed Live Gaming Equipment shall be maintained.
c. Testing shall be completed during the installation process to verify that the Live Gaming Equipment has been properly installed.
d. Live Gaming Equipment's power and communications cabling carrying game outcome data or supporting live game information shall be protected from interception, interference, or damage.

4.5.5. Equipment Software Signature Verification

For Live Gaming Equipment with Critical Control Programs evaluated or certified by an Independent Test Laboratory, procedures shall be implemented to independently verify that only Critical Control Programs in use match the certified versions. Such verification procedures shall include:

a. Comparing signatures generated by the third-party verification process to the signatures provided in the certification documentation for the applicable software version; and
b. Investigating and resolving any signature verification variances.

NOTE: Prior to program certification, the Independent Test Laboratory will evaluate the verification method in accordance with contemporary industry standards.

4.5.6. Equipment Access

The Live Gaming Equipment, including its software and hardware components, shall be subject to access controls appropriate to the equipment, its intended use, and its risk profile to prevent unauthorized access. Where one or more of the following controls are not technically or operationally appropriate, alternative technical or operational access controls may be used, provided they effectively restrict access to authorized personnel and provide commensurate protection.

a. Access by authorized personnel to Live Gaming Equipment, including modification of its configuration settings, shall be:
   i. Controlled through an authorized secure process; and
   ii. Securely logged to ensure integrity and traceability.
b. Where the Live Gaming Equipment supports authenticated user sessions, the Live Gaming Operation shall use controls consistent with applicable regulatory requirements to ensure that:
   i. A user session is initiated only after successful authentication to a user account through a secure logon procedure using a username and password or other approved authentication credentials;
   ii. Access privileges and available functions are associated with the authenticated user account;
   iii. User sessions are subject to documented inactivity controls specifying the period of inactivity after which a user session times out or locks for each applicable type of Live Gaming Equipment, and the authentication required to resume the session; and
   iv. Repeated failed access attempts are subject to documented account lockout controls specifying the number of failed attempts that trigger a lockout, the period over which such attempts are measured, the duration of the lockout, and, where supported, any mechanism for automatically releasing the account.

4.5.7. Equipment Maintenance

To ensure its continued availability, integrity, and proper operation, Live Gaming Equipment shall:

a. Be maintained, inspected, tested, and serviced by designated personnel at documented intervals consistent with applicable regulatory requirements to identify and address defects or conditions that could interfere with its operation; and
b. Have records of maintenance, inspection, testing, and servicing maintained.

4.5.8. Equipment Malfunctions and Replacement

Policies and procedures shall be implemented to identify, investigate, document, and resolve Live Gaming Equipment malfunctions including unacceptable error levels. Such procedures shall address the following:

a. Determination of the event causing the malfunction;
b. Review of relevant records, game reports, logs, and surveillance records;
c. Repair or replacement of the Live Gaming Equipment; and
d. Verification of the integrity of the Live Gaming Equipment before restoring it to operation.

4.5.9. Equipment Removal, Retirement, and Destruction

Procedures shall be implemented for the removal or retirement of Live Gaming Equipment, including destruction where authorized by the regulatory body. Such procedures shall include:

a. Removing and/or securing Live Gaming Equipment;
b. Documenting the removal, securing, retirement, or destruction of Live Gaming Equipment, including the unique identifiers and descriptions of affected equipment, and coordinating with appropriate personnel to update system records;
c. For Live Gaming Equipment containing storage media, removing or securely overwriting any licensed software and other sensitive information, and documenting such activity;
d. Where destruction is authorized by the regulatory body:
    i. Methods of destruction;
    ii. Witness or surveillance of destruction; and
    iii. Signatures of personnel destroying equipment attesting to destruction.

4.6. Game Outcome Data

4.6.1. Game Outcome Data Handling

The Live Gaming Operation shall ensure that game outcome data is recorded by the Studio Control Server before being posted to the Live Gaming Platform and made available to the remote player for review immediately following its generation or detection, subject to any game-specific restrictions on the timing of result disclosure and the natural limitations of system processing and network communication delays.

4.6.2. Studio Recording and Analysis

The Live Gaming Operation shall use a Studio Control Server to record all live gaming activity and game outcome data. The Studio Control Server can be entirely integrated into the Live Gaming Platform or another piece of Live Gaming Equipment or can exist as a separate component. The Live Gaming Studio can use its own surveillance system and a split live audio/video feed to the Studio Control Server, or a separate audio/video network can be used. The Live Gaming Operation shall ensure that the Studio Control Server:

a. Prevents anyone from accessing the game outcome data prior to finalizing a wager; and
b. Is equipped with a mechanism for authorized personnel to void or adjust game outcome data, if necessary. The conditions under which game outcome data may be voided or adjusted shall be in accordance with applicable rules and regulations of the regulatory body and shall be clearly detailed in operating procedures.

4.6.3. Automated Recognition

Where game outcome data is automatically registered by Specialized Devices, the Live Gaming Operation shall ensure that the software used for automated recognition:

a. Ensures an appropriate degree of accuracy in identifying and reporting the game outcome data to the Studio Control Server. Errors caused by the quality or condition of consumables, improper use of the device, normal wear and tear, or operational or environmental conditions outside those recommended by the supplier are excluded from this control.

b. Does not provide any information that may be used to compromise the device or its components (e.g., cards contained in the current shuffle or dealing shoe).
c. Does not interfere with or modify the device's behavior beyond the functionality associated with that software.
d. Includes a manual operation mode to allow correction of an erroneous result (e.g., misreading a card or the position of a ball), where such corrections are not made directly on the Studio Control Server. Where the manual operation mode is used:
    i. Procedures shall be in place to inform the remote players that the manual operation mode has been activated; and
    ii. Its use shall be tracked by the Live Gaming Operation to allow for further review.

4.7. Physical Randomness Devices

4.7.1. Device Randomness

Physical Randomness Devices (aka Mechanical RNGs) generate game outcome data mechanically, employing the laws of physics (e.g., wheels, tumblers, blowers, shufflers). Physical Randomness Devices shall be certified by an Independent Test Laboratory in accordance with applicable randomness requirements adopted by the regulatory body. All approved components that contribute to randomness (e.g., balls, cards) are integral to device performance and shall not be replaced with unapproved alternatives because substitutions invalidate equivalency (e.g., plastic cards replaced with paper cards).

4.7.2. Durability Inspections

Inspections of the Physical Randomness Device shall be conducted at documented intervals consistent with applicable regulatory requirements to ensure and maintain its integrity and identify degradation of any component over its intended lifespan.

4.7.3. Data Digitization and Transmission

The Live Gaming Operation shall ensure that the Physical Randomness Device's outcomes are digitized into game outcome data and securely transmitted to the Studio Control Server via Specialized Devices for processing without alterations unless approved by the regulatory body.

4.7.4. Data Integrity and Discrepancy Resolution

The Live Gaming Operation shall ensure that:

a. Except for human error or an error correctable with a manual override, the game outcome data matches the outcome generated by the Physical Randomness Device; and
b. Where a discrepancy between the Physical Randomness Device's outcome and the game outcome data exists, the Physical Randomness Device's outcome is considered correct.

4.7.5. Device Operating Procedures

The outcomes generated by a Physical Randomness Device may be affected by inadequate operating techniques, mechanical wear, damage to, or tampering with, that device. Operating procedures shall be in place that address:

a. Care and preventative maintenance;
b. Security, including recorded camera coverage;
c. The secure transporting of Physical Randomness Devices;
d. Realistic maximum lifetime or maximum cycle limitations;
e. Operational safeguards such as initial starting position not correlating to output position (e.g., ball drawing devices) and ensuring that the device remains level during operation; and
f. Approved procedures for commissioning and decommissioning devices, such as sealing and unsealing devices to ensure there is no unlawful intervention.

4.7.6. Randomness Monitoring, Logging, and Statistical Assurance

The Live Gaming Operation shall implement controls appropriate to the design and operation of each Physical Randomness Device to monitor its randomness, operation, and integrity and identify unacceptable performance, bias, patterns, failures, or degradation.

a. Monitoring activities shall include, where applicable to the device design and monitoring method:
    i. Review and validation of the seeding process where outcomes are at least partially dependent on software;
    ii. Analysis of outcomes generated by the device for statistical randomness and the absence of unacceptable bias or patterns;
    iii. Detection of anomalies, failures, or degradation in device performance, including those caused by mechanical wear or damage; and
    iv. Verification of the mapping between the device's outcomes and game outcome data, which may be performed as a non-real-time control.
b. Any detected abnormalities, errors, or indications of unacceptable performance shall be securely logged and escalated for investigation.

4.8. Live Game Procedures

4.8.1. Game Procedures and Review

Separate procedures shall be established for each live game and shall be in place before a new game is offered to remote players. Live game procedures shall be reviewed at documented intervals consistent with applicable regulatory requirements to ensure that risks are identified, mitigated, and addressed through contingency plans.

4.8.2. Live Game Integrity and Monitoring

The Live Gaming Operation shall establish risk-based procedures for the identification, documentation, review, investigation, escalation, and appropriate response to suspicious player activity, including coordinated player activity, prohibited player activity, automated abuse, and other integrity concerns identified through monitoring activities or other sources. Such procedures shall include, at a minimum:

a. Recording each remote player's selection of tables/games and gaming attendants, including repeated rejections of randomly-selected tables/games or attendants and requests for reassignment within the same live game type to obtain a preferred selection;
b. Identifying and/or refusing suspicious wagers or player behavior that may indicate cheating, manipulation, interference with the regular conduct of a live game, or other violations of live game integrity;
c. Reasonably detecting irregular patterns or series of wagers that may indicate coordinated player activity between players, gaming attendants, or other personnel involved in a live game; and
d. Reviewing and investigating reports from remote players regarding suspected cheating, coordinated player activity, or the use of unauthorized player assistance methods by other players to gain an unfair advantage.

4.8.3. Anomalous Events during Live Games

Procedures regarding anomalous events that may occur during live games shall be documented and understood by personnel, including, but not limited to:

a. Live Gaming Equipment malfunctions, including incorrect result detection;
b. Dropped cards;
c. Misdeals;
d. Re-spins or re-draws;
e. Aborted games; and
f. Table/game suspension or closure, including recording the date, time, and reason for the action.

4.8.4. Card Shuffling

For card games, consistent card shuffling procedures, including a verification of the card count, frequency of shuffling, and circumstances requiring reshuffling, shall be established and followed. Shuffling of cards shall be recorded by the surveillance system or in a log.

4.8.5. Tamper-Proof Devices

Procedures shall be in place to ensure card shoes and similar Live Gaming Equipment are tamper-proof once they have been loaded to preclude interference prior to and during play.

4.8.6. Operational Variations

Variations in the operation of Live Gaming Equipment shall be incorporated into the game procedures to maintain randomness. This equipment shall have a level of randomness consistent with that seen in Gaming Venues to ensure their fairness and integrity.

4.8.7. Live Game Monitoring, Analysis, and Reporting

The Live Gaming Operation shall implement controls to:

a. Monitor and evaluate live gaming activity and performance;
b. Maintain live game logs; and
c. Collate information from live game logs and game outcome data into statistics, analyze such statistics for trends relating to game performance, personnel, shifts, locations within the Live Gaming Studio, procedure violations, incidents, irregularities, and errors, and generate reports based on the analysis.

4.8.8. Return to Player (RTP) Monitoring and Evaluation

For applicable live house-banked games, the Live Gaming Operation shall establish procedures to document, monitor, and evaluate theoretical and actual return to player (RTP) percentages to ensure accuracy, transparency, and the timely detection of abnormal performance. Any detected abnormalities shall be securely logged and escalated for investigation.

a. Accurate and current documentation (e.g., live game procedures) shall be maintained, indicating the theoretical RTPs for each live house-banked game based on the applicable wagering options, payout schedules, and other relevant game characteristics.
b. Records shall be maintained for each live house-banked game indicating the initial theoretical RTP, dates and types of changes affecting the theoretical RTP, and the recalculated theoretical RTP resulting from such changes. Where such changes materially affect the theoretical RTP, a new reporting baseline shall be established for monitoring and evaluating game performance.
c. Where bonusing/promotional credits and/or prizes are included in the reports and records for a live house-banked game, they shall be accounted for in a manner that does not distort the actual RTP.
d. Actual live house-banked game outcome data shall be monitored, including where applicable:
    i. Calculating actual RTP using live game logs and comparing it against the applicable theoretical RTP;
    ii. Establishing monitoring frequency, measurement periods, and acceptable variance thresholds based on the game's volatility and volume of play to detect discrepancies in a timely manner;
    iii. Monitoring game performance at a sufficient level of granularity to identify discrepancies that may be obscured by aggregated game outcome data;
    iv. Implementing automated monitoring and alerts where practicable; and
    v. Implementing appropriate corrective actions where necessary.
e. RTP monitoring may be performed by the Live Gaming Operation or a third-party service provider with access to the necessary wagering, payout, and live game logs. Where performed by a third-party service provider, the operator shall ensure that the game outcome data required for monitoring is available and any material discrepancies are promptly communicated.

f. Records shall be maintained documenting the monitoring methodology, variance thresholds, measurement periods, live game logs analyzed, game outcome data obtained, and any material discrepancies and corrective actions. Such records shall be retained in accordance with applicable regulatory requirements and made available to the regulatory body upon request.

NOTE: The regulatory body may require a payout calculation evaluation as part of an LGS Assessment to review the recorded information for each applicable live house-banked game and produce a formal report documenting the actual RTP calculated from that information.

4.8.9. Progressive Jackpot and Incrementing Bonus Jackpot Procedures

The Live Gaming Operation shall establish procedures governing jackpot operations for applicable live games, including:

a. Where jackpot contributions are part of the RTP calculations, ensuring that such contributions are not recognized as revenue;
b. Jackpot transfers and modifications, where supported;
c. For large jackpot awards exceeding a value established by the regulatory body:
    i. Jackpot verification and payment procedures, including independent reconciliation and Live Gaming Operation signoff;
    ii. Payment procedures where multiple jackpot triggers occur and there is no definitive way to determine which trigger occurred first, unless handled automatically by the applicable Live Gaming Equipment; and
    iii. Disbursement options for jackpot awards, including information regarding periodic payments;
d. For jackpots with parameters configurable after initial setup, independent reconciliation of jackpot contributions and awards to ensure that all jackpot increments deducted:
    i. Have been paid to remote players as jackpot payoffs;
    ii. Are displayed as part of jackpot payoffs; or
    iii. Are held in separate accounts and can be demonstrated to be payable to remote players as part of future jackpot payoffs; and
e. Jackpot retirement procedures, including the distribution of outstanding contributions to another jackpot made available to a similar player base, to the remote players who contributed the funds, or as otherwise directed by the regulatory body.

4.9. Personnel Management and Oversight

4.9.1. Personnel Hiring and Termination

Procedures for the hiring and termination of personnel shall be documented.

4.9.2. Personnel Background Checks

Procedures shall be in place to conduct appropriate personnel screening at documented intervals consistent with applicable regulatory requirements, including criminal background checks, where permitted by law and consistent with applicable privacy, data protection, and employment requirements.

4.9.3. Personnel Training

To provide live games in a fair manner according to documented procedures and game rules, only personnel who have the requisite qualifications and have received training either internally or externally or have attended a training course shall be used to organize the live games.

a. Personnel shall be trained in, and regularly reminded of, any physical behavior that is prohibited or mandated (e.g., hand signals, talking, card handling).
b. Evidence of training and any refresher training shall be maintained.

4.9.4. Personnel Scheduling

Policies and procedures concerning personnel rotations, shift patterns, allocations, and changes in gaming attendants during exceptional circumstances shall be documented. Such policies and procedures shall ensure that:

a. Gaming attendants are allocated to tables/games without prior knowledge of the specific tables/games they will be serving;
b. Time assigned to a table/game is limited to a level intended to deter the development of inappropriate or harmful relationships; and
c. Staffing logs are maintained for each table/game.

4.9.5. Personnel Records

The retention of documentation shall be secure, allowing personnel records to be audited and investigations to be performed where personnel are directly involved or where their presence in a particular place and/or time is crucial to understanding a chain of events.

4.9.6. Personnel Organizational Chart

The Live Gaming Operation shall provide an organizational chart of personnel with responsibility over the conduct of live games.

4.9.7. Personnel Supervision

Supervision shall be provided as needed for operations by personnel with authority equal to or greater than those being supervised. Supervisory personnel shall:

a. Be responsible for ensuring that the Live Gaming Studio is operating in accordance with established policies and procedures; and
b. Always be available when live games are taking place.

4.9.8. Personnel Duties Segregation

Procedures shall be in place to demonstrate that:

a. Game management responsibilities are segregated among personnel before, during, and after play, so that no single individual can perform all duties concerning game management; and
b. Segregated duties are adequately monitored to detect procedural errors and to prevent the concealment of fraud.

DEFINITIONS

Access Control – The process of granting or denying specific requests for obtaining and using sensitive information and related services specific to a system; and to enter specific physical facilities which house critical network or system infrastructure.

Algorithm – A finite set of unambiguous instructions performed in a prescribed sequence to achieve a goal, especially a mathematical rule or procedure used to compute a desired result. Algorithms are the basis for most computer programming.

Artwork – The graphics, thematic art, help screens, and other textual information that is shown to a remote player by the Remote Player Interface.

Audit Trail – A record showing who has accessed a system and what operations the user has performed during a given period.

Authentication – Verifying the identity of a user, process, software package, or device, often as a prerequisite to allowing access to resources in a system.

Best-Hand Play – Illicit peer-to-peer coordination in which, among two or more players, only the player who has the best score always plays, while the other or others leave the game.

Bonusing/Promotional Offers (aka "Bonusing/Promotional Credits and/or Prizes" or "Bonusing/Promotional Amounts") – Credits and/or prizes not included in the standard paytable of a game, that are awarded based upon pre-determined events or criteria established by the terms of the offers. Such offers may be triggered by player activity tied to a specific player account or game or by external conditions not directly tied to player activity, at random, as a bundle with the purchase of related products, services, or activities, or upon the completion of specified tasks disclosed to the remote player. Examples include, but are not limited to, earning bonusing/promotional credits based on a first deposit or wager, awarding prizes after wagering a specific amount in a game or gaming session, awarding credits for wagering more than a specific amount within a specified time period, applying a specified multiplier to eligible winnings, and awarding bonusing/promotional credits after making a non-wager purchase.

Chip Dumping – Illicit peer-to-peer coordination involving the intentional transfer of chips between players, including where a player deliberately folds or loses despite holding a clearly winning hand.

Collusion – Coordinated player activity used to gain an unfair advantage in live gaming.

Communications Technology – Any method used, and the components employed, to facilitate the transmission and receipt of information, including transmission and reception by systems using wire, wireless, cable, radio, microwave, light, fiber optics, satellite, or computer data networks, including the Internet and intranets.

Contributions – The financial method by which jackpots are funded.

Coordinated Player Activity – Suspicious player activity involving two or more individuals, accounts, devices, payment methods, chat or external communication channels, or related identifiers that may indicate collusion, multi-accounting, syndicate behavior, shared account control, information sharing, signaling, unauthorized proxy betting, Illicit peer-to-peer coordination (e.g., chip dumping, soft-play, best-hand play), or other conduct designed to obtain an unfair advantage, evade controls, or compromise the integrity of live gaming.

Credit Meter – A meter which maintains the player funds available to the remote player for the commitment of a wager which is transferred to and from the player account balance.

Critical Component – Any sub-system for which failure or compromise can lead to loss of player entitlements, government revenue or unauthorized access to data used for generating reports for the regulatory body.

Critical Control Program – A software program that controls behaviors relative to any applicable technical standard and/or regulatory requirement.

Game Outcome Data – Any data representing outcomes generated or detected during a live game, whether through Specialized Devices, manual processes, or other means, up to and including the result of the remote player's wager, including any intermediate game states that impact the outcome of the game.

Gaming Device – An electronic or electro-mechanical device that at a minimum will utilize an element of chance, skill, or strategy, or some combination of these elements in the determination of prizes, contain some form of activation to initiate the selection process, and makes use of a suitable methodology for delivery of the determined outcome.

GPE, *Gaming Production Environment* – The operational setting where live gaming activities and related services are conducted, managed, and delivered to remote players in a live or real-time manner.

Incrementing Bonus Jackpot – A monetary award or "jackpot payoff" that increases on the occurrence of one or more specific conditions established by the rules of the game. In addition to those specific conditions, it is acceptable for incrementing bonus jackpots to also increase according to the amounts wagered.

Interactive Gaming – Gaming, conducted through the use of communications technology, which uses one or more elements of chance, skill, or strategy, or some combination of these elements in the determination of awards, contains some form of activation to initiate the selection process, and makes use of a suitable methodology for delivery of the determined outcome to the remote player's device (personal computer, mobile phone, tablet, etc.).

Internet – An interconnected system of networks that connects computers around the world via TCP/IP.

Live Game – A game conducted by a gaming attendant (dealer, croupier, host, etc.) and/or other Live Gaming Equipment in a Live Gaming Studio in which remote players have the ability to review gameplay and communicate game decisions through the Live Gaming Platform. Live games include, but are not limited to, live drawings, live card games, live table games, live keno games, live bingo games, live gameshow games, and live or remote play of Gaming Devices or other games as allowed by the regulatory body.

Live Game Management Component – A workstation for gaming attendants (dealer, croupier, host, etc.) to manage live gaming activity in a Live Gaming Studio.

Live Gaming Equipment — Equipment that generates, detects, or transmits game outcome data, or that is used by a gaming attendant to conduct or manage live gaming activity. Live Gaming Equipment includes, but is not limited to, Studio Control Servers, Physical Randomness Devices, Specialized Devices, Live Game Management Components, Gaming Devices used for live or remote play, and any other technological aids to the play of live games which directly impact live gaming activity and game outcome data.

Live Gaming Operation – An entity that oversees live gaming, using both the technological capabilities of the Live Gaming Equipment as well as their own internal control procedures. For the purposes of this document, the term Live Gaming Operation also includes any entity that oversees some or all live gaming on the Live Gaming Operation's behalf, such as an operator, game provider, software supplier, or a third-party service provider.

Live Gaming Platform – The hardware, software, firmware, communications technology, other equipment, as well as operational procedures used to host live games and/or aggregate live game content, as well as drive the features common to live game offerings, live game configurations, RNGs, reporting, etc.

Live Gaming Studio (aka "Live Game Environment" or "Live Dealer Studio") – A physical location that utilizes live video streaming technology to provide live games to a Remote Player Interface that permits the remote player to participate in live streamed games, interact with game attendants, and interact with fellow players.

Live House-Banked Game – A live game in which the Live Gaming Operation participates as a party to the wager and banks the game by paying winning wagers and collecting losing wagers, rather than merely facilitating the gaming activity.

PAR Sheet – A specification sheet for a game that provides the theoretical return to player, hit frequency, symbol combination, number of reels, number of credits that can be accepted, and reel strip listing as applicable.

Paytable (aka “Variation”) – The mathematical behavior of a game based upon the data from the supplier’s PAR sheet or the applicable rules of play, inclusive of the return to player, and reflective of all possible payouts/awards.

Physical Randomness Device (aka “Mechanical RNG”) – An RNG that generates outcomes mechanically, employing the laws of physics. Live game implementations include, but are not limited to, automated and non-automated mechanical wheels, tumblers, blowers, shufflers, shoes, shakers, throwers, etc.

Progressive Jackpot – A monetary award or “jackpot payoff” that increases generally based on a function of wagers or some other metrics.

Prohibited Player Activity – Suspicious player activity prohibited by internal control procedures, gaming rules, or applicable laws or regulations. These may include, but are not limited to, cheating, fraud, theft, embezzlement, identity misrepresentation, money laundering, terrorist financing, use of funds derived from illegal activity, unauthorized player assistance, manipulation of game outcomes, misuse of insider information, payment fraud, identity theft, account takeover or misuse, or other activity that compromises the integrity of live gaming.

Rake, Commission, or Fee – An amount retained and not distributed by the Live Gaming Operation from the total amount wagered on a game.

Randomness – The observed unpredictability and absence of pattern in a set of elements or events that have definite probabilities of occurrence.

Remote Player Interface – An interface application or program through which a remote player views and/or interacts with the live game.

Risk – The likelihood of a threat being successful in its attack against a network or system.

RNG, *Random Number Generator* – A computational or physical device, algorithm, or system designed to produce unpredictable values in a manner indistinguishable from random selection.

RTP, *Return to Player* – A ratio of the ‘total amount won’ to the ‘total amount wagered’ by a player. Such a return may be “theoretical” (based on mathematical calculations or simulations) or “actual” (based on the metering supported by a live game).

Sensitive Information – Information that shall be handled in a secure manner, such as PII, authentication credentials, gaming data, RNG seeds, secure seeds and keys, and other data which is of a sensitive nature.

Server – A running instance of software that is capable of accepting requests from clients, and the computer that executes such software. Servers operate within a Client-Server Architecture, in which “servers” are computer programs running to serve the requests of other programs (“clients”).

Soft-Play – Illicit peer-to-peer coordination where one or more players decline to play against another player in situations where such behavior is unreasonable in accordance with normal practices of play (for example, a player leaves the game even if the win is secure).

Specialized Device – A hardware device or associated system used in a live game to detect, recognize, capture, register, digitize, or verify game-related information, events, actions, or outcomes for transmission to or processing by the Studio Control Server. Specialized Devices may include equipment used to recognize playing cards, determine ball positions, track gaming chips or tokens, or otherwise capture or process information relevant to the conduct or outcome of a live game.

Sponsored Player (aka "Proposition Player" or “Shill”) – A player who is hired by the Live Gaming Operation or other entity to participate in live gaming, and who wagers using personal funds and/or funds provided directly or indirectly by the operation or other entity.

Strategy – A choice, or set of choices, for how to proceed in a game where the decision impacts the return to player.

Studio Control Server – A server or associated system used to record, manage, and control live gaming activity and game outcome data, including the delivery of live audio/video content and the processing of authorized game outcome data adjustments. A Studio Control Server may be integrated into the Live Gaming Platform or other Live Gaming Equipment or may operate as a separate component.

Suspicious Player Activity – Activity, pattern, or condition involving gameplay, games, player accounts, transactions, communications, devices, networks, or related activity that may indicate coordinated player activity, prohibited player activity, automated abuse, and/or other integrity concerns. These may include, but are not limited to, irregular gameplay patterns, abnormal or structured wagers or gaming activity, unusual gameplay volumes, timing anomalies, rapid changes in gameplay behavior, abuse of gameplay mechanics, tables/games hopping or gaming attendants hopping, abuse of bonusing/promotional offers, or behavior inconsistent with normal player activity.

Threat – Any circumstance or event with the potential to adversely impact network operations (including mission, functions, image, or reputation), assets, or individuals through a system via unauthorized access, destruction, disclosure, modification of information, and/or denial of service. Also, the potential for a threat-source to successfully exploit a system vulnerability.

Time Stamp – A record of the current value of the date and time which is added to a message at the time the message is created.

Unauthorized Access – A person gains logical or physical access without permission to a network, system, application, data, or other resource.

Unauthorized Player Assistance – The use of bots, scripts, and other unauthorized player software, which may include automated tools, external systems, real-time analytical tools, or prohibited decision-making aids to generate, recommend, execute, or influence wagers or gameplay decisions in violation of the rules of the game.

Vulnerability – Software, hardware, or other weaknesses in a network or system that can provide a “door” to introducing a threat.

Wager (aka “Bet”) – Any commitment of credit, currency, or other representation of value by a remote player on the outcome of a live game. Where a purchase affects the outcome, return to player, odds, or awards of a live game, it is treated as a wager.